PALESTINE EXPLORATION QUARTERLY

Embodying the *Quarterly Statement* of the Palestine Exploration Fund and the *Bulletin* of the British School of Archæology in Jerusalem

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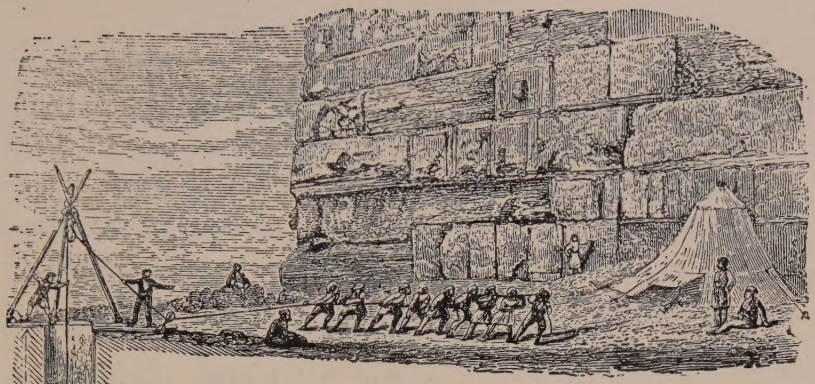

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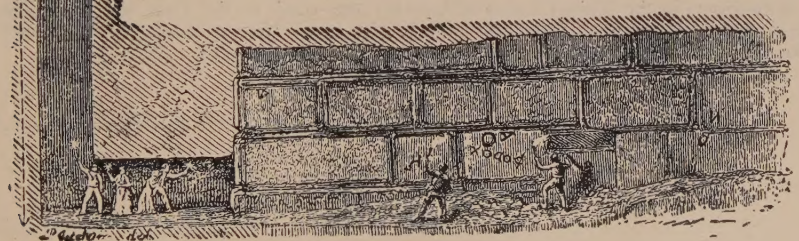

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THE PALESTINE EXPLORATION FUND

NOTES AND NEWS

Attention should be drawn to the publication by the Princeton University Press of a companion volume to *Ancient Near Eastern Texts*, also edited by Professor J. B. Pritchard. This is entitled *The Ancient Near East in Pictures*. Both volumes relate specifically to the Old Testament, and are indispensable to all students of the Old Testament. The new book, like its earlier companion, is published in England by Mr. Geoffrey Cumberlege at the Oxford University Press, and the price is 160s. net. Our old friend, Gressmann's *Altorientalische Texte und Bilder zum alten Testament*, which has served us so well for many years, is now superseded by these two magnificent productions. A review of the new volume will be found elsewhere in this issue of the *Palestine Exploration Quarterly*.

The relatively early date and authenticity of the Dead Sea Scrolls now generally considered to have been established by the further discoveries in the Qumran Caves are no longer the subjects of heated controversy, and the shrill protests from Dropsie College have grown faint and remote. But the flood of writing about the documents increases daily. Out of seven major articles in the April issue of *Vetus Testamentum*, five deal with questions arising out of these documents, and the current number of *Revue Biblique* (July, 1955), contains an article by R. P. Milik in which he presents a fragment of the Testament of Levi in Aramaic, found among the mass of fragments discovered in the Qumran Caves. We have also to record the appearance from the Oxford University Press of the first volume of a series which will in due course deal with the material from the caves at Murabba'at, Qumran Caves II to VI, the Essene settlement of Khirbet Qumran, and the late documents of Khirbet Mird. The present volume is entitled *Qumran Cave I*, edited by D. Barthélemy, O.P., and J. T. Milik, with contributions by R. de Vaux, O.P., G. M. Crowfoot, H. J. Plenderleith, and G. L. Harding. A review appears elsewhere in this issue of *P.E.Q.*

In the July number of *Revue Biblique* there is an important article by Professor H. Cazelles dealing with localities mentioned in the book of Exodus and their bearing on problems of the literary criticism of the Pentateuch. The much discussed question of the route of the Exodus receives careful

examination, and use is made of the recent work of the Egyptologists. The article should be of special interest to readers of this journal in view of Major Jarvis's discussion of the subject in the volumes of the *P.E.Q.* for 1937–8. We publish an article from the pen of Professor Cazelles in the present issue of *P.E.Q.*

When the Ras Shamra texts first appeared one of the indirect consequences of the study of their contents was the confirmation of the account given by Philo of Byblos, as preserved in Eusebius, of Phoenician mythology. One of Philo's statements was to the effect that the Phoenicians attributed the discovery of iron and the art of smelting it to two brothers, one of whom had the name of Chusor, equated by Philo with the craftsman god Hephaestus or Vulcan. In the Ugaritic literature there is found an account of the building of a temple for Baal by an individual, usually described as a craftsman god, named *Kšr-u-Ḥss*. Scholars quickly came to the conclusion that Philo's Chusor could very plausibly be identified with the Ugaritic *Kšr*. Now, however, in the current issue of the *Israel Exploration Journal* (vol. V, no. 3), Professor Lewy throws doubt on this identification and adduces interesting evidence from early Assyrian sources that the word *ḫusarum* means iron ore, or more precisely, haematite. He goes on to argue from the well-known fact of the early deification of metals, that Chusor is to be identified with the Assyrian *ḫusarum*. The article is of no small interest.

In spite of its many pre-occupations, the young state of Israel finds time to spare for archaeological activities, as the pages of this journal can testify. In the spring of this year a group of Israeli archaeologists have carried out a survey of the remains of Herod's palace and fortress and the Roman siege-works on the rock of Masada. The place is famous for the last desperate stand of Jewish nationalists after the capture of Jerusalem by the Romans in A.D. 70. An interesting account of the expedition is given in *News-Letter*, no. 32 of the Anglo-Israel Association, by Mr. Y. Aharoni, one of the directors of the enterprise.

In the May issue of *The Biblical Archaeologist* for this year the editor records a remarkable discovery made by a shepherd among the debris of the American excavation of Megiddo. This was nothing less than a cuneiform tablet containing 40 lines of the Gilgamesh Epic. It may be remembered that the legend of Adapa was found among the documents discovered at Tell el-Amarna, where it must have served as a cuneiform text for the study of Egyptian scribes. That such a document should have been found on the site of an Israelite city reminds us of the possibilities of contact between Babylonian and early Hebrew culture. The Hebrew story of the Flood shows clear signs of a knowledge of the Babylonian story of the Flood contained in the Gilgamesh Epic.

The same issue of *The Biblical Archaeologist* contains an illustration of Mr. Stevens' reconstruction of Solomon's Temple drawn from specifications prepared by Professors Albright and Wright. There is also a picture of the reconstruction of the brazen altar of burnt offering seen by Ezekiel, in his vision. It may be worth remarking that although the altar of Ezekiel's vision has steps, the provision of steps to ascend the altar would violate the prescription of the Code of the Covenant in Ex. xx, 26 which forbids the approach to the altar by means of steps. In the Mishnah treatise *Yoma* the approach to the altar of burnt offering is described as consisting of an inclined ramp.

The Negeb of Israel has been the scene in recent years of much important archaeological activity. The April number of the *BASOR* contains a detailed report by Professor Nelson Glueck of the third season of archaeological exploration of this region. One important result of these activities has been to prove that the Negeb, far from being a wilderness, has been the scene of many permanent settlements from at least Middle Bronze I, although the question of where these settlements obtained their water from remains a problem. Professor Glueck is of the opinion that there was some degree of oscillation in the history of settlement, and that a gap occurs about the beginning of Iron I which is not found in Western Palestine. During this period there seems to have been " a complete lack of strong authority to keep the Bedouins in check and enable agriculture and trade to be carried on and to keep communication intact." He points out that kings like Solomon and Uzziah undoubtedly did maintain police posts and caravan stations in the Negeb. The report is worth careful study.

It is now twenty years since the work of excavation began at Tell Hariri, the site of the ancient city of Ma'er, or Mari. The results of M. Parrot's labours at Mari bid fair to rival those of Professor Schaeffer at Ugarit. Though nothing like the sensational discovery of a cuneiform alphabetic script has happened at Mari, yet the great mass of cuneiform documents discovered in the royal archives of Mari have already thrown a flood of new light on a period of history hitherto only dimly illuminated. In the latest issue of *Syria*, vol. XXXI, pts. 3 and 4, may be found the preliminary report of the 20th season of excavation at Mari, a season which has been no less fruitful in results than any of its predecessors. Two interesting items call for note. One is the discovery of a *maṣṣebah* or standing stone pillar in one of the newly unearthed temples. This is the first example of such a cult object in Mesopotamia, its occurrence having hitherto been supposed to be limited to Phoenicia and Canaan. The other item consists of pictured ivories, one of which, according to Professor Parrot depicts the killing of a sacrificial ram. In the absence of anything to indicate the locality where the slaying is taking place, the suggestion might be made, from the way in which

the ram's legs are held, that the ivory depicts a bucolic scene of sheep-shearing. Among much other richness this number of *Syria* contains an important article by Professor Bossert on a hieroglyphic Hittite inscription from Aleppo, and a discussion of the relation between Egyptian and Semitic grammatical forms by M. Pierre Lacau.

Miss Kenyon has continued her fruitful excavation of Jericho, and her report on the last season's results will be found in this issue of *P.E.Q.*

The success of last winter's course of evening lectures on the Old Testament and Archaeology has encouraged the Committee to arrange a further series to begin after Christmas on consecutive Mondays. On January 9th, Mr. J. M. Allegro, of the University of Manchester will speak on " The Qumran Community and the Early Church ". He has been working with the International Commission in Jerusalem on the Dead Sea Scrolls, and is also writing on the subject. On January 16th, Professor C. M. Robertson, Yates Professor of Classical Art and Archaeology in the University of London will sketch the contemporary background of the Hellenistic Period in Palestine. On January 23rd, Mr. G. M. Fitzgerald, Chairman of the Executive Committee of the Fund, will cover the history of the Roman Period.

The lectures will be at 6 p.m. and admission is free to all. Tickets are obtainable on application to the Assistant Secretary at 2 Hinde St., W.1., where the course will take place.

PALESTINE EXPLORATION QUARTERLY

The Secretary will be grateful for unwanted copies of the following:

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IN MEMORIAM

SIR RONALD STORRS, K.C.M.G., C.B.E.

Sir Ronald Storrs was one of the great English proconsuls of our time in the Middle East, described by Lawrence as " the most brilliant of them all". By his diplomatic skill, his genial persuasiveness and his mastery of the apt word, he was one of the architects of the Arab revolt in the first world war. For 25 years he was in office in the Middle East, but he belonged to it for 50 years. He had a great love for it, above all for Jerusalem, the Holy City. " There is no promotion ", he wrote, " after Jerusalem ". It was as Military Governor and then as District Commissioner for the Jerusalem region, 1917–1926, that he most truly fulfilled himself. The governorships of Cyprus and Northern Rhodesia, which followed were steps in an official career which he did not welcome.

Essentially the artist, he loved to collect beautiful things and to make every place where he bore rule more beautiful. In addition he had a deep sense of history and a life-long interest in antiquity. He was an ardent supporter of the Palestine Exploration Fund and a patron of the British School of Archaeology in Jerusalem.

The will to please was strong in him; and in Palestine and Cyprus he cast himself in the part of mediator between rival nationalists. But circumstances were too hard for him in those countries. He was an artist in words, as he proved in his brilliant book " Orientations ", which is the story of his life till the end of his Governship of Cyprus. The book contains masterpieces of gentle irony. If he was critical of a person or a policy, his sharp weapon was the apt quotation from his opponent; and he would use the double adjective with telling effect. He was steadfast in friendship to Lawrence, to Samuel, to Amery, and to a hundred less famous colleagues. A word, too, must be said of his scholarship and his love for the classics, of which the greatest for him were the Bible, Homer, Horace and Dante. And he was an enthusiastic member of the Horatian Society. With him something gay has gone out of the life of all who knew him.

NORMAN BENTWICH

EXCAVATIONS AT JERICHO, 1955

By Kathleen M. Kenyon

Director, British School of Archaeology in Jerusalem

In the fourth season's excavations at Jericho, from January to April, 1955, the British School of Archaeology once more collaborated with the American School of Oriental Research in Jerusalem. The American School not only made a substantial financial contribution, but the expedition is in its debt for the provision of a station-wagon and much most useful equipment, including an electric generator which provided light for the dig house. The British expedition was sponsored by the Palestine Exploration Fund, the British School in Jerusalem and the British Academy. Major contributions were made by the Russell Trust, Birmingham City Museum, the Ashmolean Museum and the Australian Institute of Archaeology, and welcome support was also given by the Cambridge Museum of Archaeology and Ethnology, the Oxford University Committee for Advanced Studies, the Universities of Liverpool, London, Leeds and Reading, Trinity College Dublin, Trinity College Cambridge, the Royal Anthropological Institute and Leeds City Museum. Welcome new contributors from overseas were the Royal Ontario Museum Toronto, Emory University Georgia, and Leiden University.

The Expedition once more received a warm welcome and every assistance from the Department of Antiquities of the Hashemite Kingdom of Jordan. The Director, Mr. G. L. Harding, was a regular visitor to the site, and his great interest gave much encouragement. We were also honoured by a visit from H.E. the Minister of Education, Anwar Nuseibeh. A member of the staff of the Department, Mr. Mohammed Saleh, took part in the excavations throughout the season.

Staff and students of both Schools formed the staff of the Expedition. Dr. William Morton, Director of the American School, was unfortunately prevented by ill-health from taking a full part in the work, but was present throughout most of the latter part of the season. Four other members of the American School took part in the work, and there were eighteen full-time members from Britain. We were glad also to welcome Dr. H. Franken from Leiden. For the last two months we were joined by Dr. G. Kurth of Göttingen University, who came to study the anthropological material, on a grant most generously provided by the Deutsche Forschungsgemeinschaft. For the last part of the dig we were also joined once more by Professor F. E.

Zeuner of the University of London Institute of Archaeology, to study environmental questions, and particularly the problem of the preservation of material in the tombs. The whole team was as usual a most efficient and hard-working one, to all members of which the thanks of the Committee are due.

Neolithic Period

The investigation of the problems of the pre-pottery Neolithic phase continued in three main areas, Site E, Site M, and Trench I—Squares F and D, now combined in one area (for plan, see *P.E.Q.*, Oct., 1954, fig. 1. The sites are also visible in the air photograph, pl. XII of the present article). But in addition to these areas, levels of this phase were touched at the extreme south end of Trench III, at the south end of the city in Sqs. L-M 4. This is of considerable importance, since it establishes the fact that in all probability the pre-pottery Neolithic settlement covered at least as large an area as the Bronze Age city. Levels of this phase have not yet been reached in the north trench (Sqs. C-D, 6–7), but in the make-up of the Middle Bronze Age plastered revetment there, almost certainly derived from the area *outside* the foot of the revetment, objects, such as stone bowls, typical of the phase have been found. Moreover, Site E lies only just to the south, and here a long series of levels of the period has been identified. There is uncertainty about the limits on the east side, for the modern road here cuts into the tell. But Professor Garstang proved the existence of levels running right out to the road near the north end, so the extension of occupation of this period to the limits of the Middle Bronze city is very probable. The area of the pre-pottery Neolithic settlement may therefore be calculated at 7·8 acres. Evidence from all the sites excavated suggests that the whole area was closely built up, and on the basis of modern population density in Western Asiatic countries, a very rough estimate of population of some 3,000 inhabitants may be made. This evidence adds one more surprising fact to the development of this very early stage at Jericho, the implications of which are discussed below.

Site M is an enlargement of that portion of the great German trench[1] across the tell from east to west which runs up to the inner side of the Early Bronze Age walls. The Early Bronze Age levels were cleared in 1953. Beneath lay the usual pits of the pottery Neolithic stage, dug to obtain brick-material when the people who used the pottery started to construct mud-brick buildings.[2] The clearance of these was completed early in the season, and that of the underlying pre-pottery levels, here at a depth of 5 m. below the surface, was begun. The German trench had actually penetrated these levels to a depth of some 4 m., but their significance was of course not realised at the time. The lower part of the German trench fortunately contracted considerably, so the levels were intact over the greater part of the site.

[1] E. Sellin and C. Watzinger, *Jericho*. [2] *P.E.Q.*, 1954, pp. 54–55.

The remains proved to be similar to those found elsewhere on the site. There were the usual burnished plastered floors, with the plaster carried up the walls, and the walls were constructed of the characteristic cigar-shaped bricks with herring-bone pattern of thumb-impressions. Beneath the floors was found a number of burials of the same type as those found last year. Altogether eleven structural phases were cleared.

The most important find in this area was a substantial wall (pl. XIV, 1 and 2) which is very probably the continuation of the upper town wall found at the east end of Trench I in 1952 and further cleared in 1953. It lay on the extreme eastern edge of the excavated site, partially broken down by the German trench, and it was therefore not possible to investigate the levels to its rear to see whether, as in the other section, the wall represented a substantial terracing of the edge of this site. A thick fill against the front of the wall, subsequent to its destruction, would suggest that this was so, though the fill is not so deep as that against the first section. The two lengths of wall do not exactly align, but this is not a serious difficulty, since even within the 10 m. exposed in the first trench its course was markedly sinuous. The strongest suggestion that the two sections do belong together lies in the character of the construction. The new section is not preserved so high as the original one, but like it consists of a number of enormous orthostats, with between them sections of smaller stones. Three such orthostats were exposed, the largest a colossal slab three metres wide by two high (pl. XIV, 2). The quarrying, transport and erection of such a stone represents a remarkable achievement.

The clearance of the successive structural levels in Site E, squares EI, II and V, made steady progress, though the level of the base of the sounding made in 1953 and 1954 was not attained. The main features of the plan remained constant, with at each stage a courtyard in the middle of the excavated area and buildings on the east and west side. The shift by which at each successive earlier stage the courtyard is somewhat farther west was continued, emphasizing the fact that though the plan retains the same main features over the twelve phases so far excavated, there is a substantial degree of rebuilding at most phases. In the earliest phase so far reached, the building to the west of the courtyard has receded almost to the western edge of the area being excavated (pl. XV, 1).

The work this year was slowed down by a remarkable new feature discovered. This was that to the admirable architectural features of the houses was added the refinement in comfort of rush mats on the floors. Five mats in all were found. They survived only as a thin white film, which nevertheless showed the grain of the rushes from which they were made, and the film followed the outline of the curve of the rush-coils; clearance was an exceedingly delicate task, but when completed it showed the rounded outline of the coils and the complete pattern of the mat (pl. XV, 1, XVI). Most of the mats seem to have been circular, but one of the most clearly preserved

started from an oval core, working outwards to a rather more rounded border (pl. XVI, 1). This mat had the added interest of recording the track of a white ant, showing that these pests were as active some seven or eight thousand years ago as today. Two interesting objects found in this area are shown on pl. XXIII, a small bone bead carved in the shape of a human head, and a cone of unbaked clay with a swastika pattern on the basis, which would seem to be a seal.

The excavation of the Trench I—Squares D and F area, is divided into two by the relation of the levels to the great wall discovered in 1954. Outside the wall, the clearance had to be completed of the fill which had accumulated against the face of the wall after it went out of use. It will be remembered that overlying the wall was a substantial building with finely burnished floors and walls, which may have been a temple. The removal of this building was completed, and clearance down began of the tipped fill which the sounding against the face of the wall had already established. There proved to be some four structural phases overlying the main fill against the wall. None was very well preserved, and the area excavated was too restricted to establish much of the plan, but the character seemed to be similar to other buildings of the period. In one were found traces of another rush mat, this time apparently rectangular. The rock was found, as was expected, to be sloping steadily down towards the east, and the layers tailed off onto it. From the evidence of the area so far cleared, these phases, which are of course later than the great wall, seem to belong to a period when the site was not enclosed by a wall. In all, a length of 18 m. of bed-rock was exposed, but the excavation was not completed, a distance of 11 m. remaining to link up with the 1954 sounding.

In the area inside the wall, the problem to be investigated was the fill which was expected to represent earlier levels against which the wall was built. To examine them it was necessary to destroy the overlying, later, town wall, which we did with much reluctance. Beneath the house contemporary with the later wall was another of similar plan, though built on a greater slope, which was contemporary with the temple-like structure already mentioned, with a surface sloping up steeply to the east. Beneath it was another, similar, house.

When this level had been removed, a great mass of stones began to appear, and from this gradually emerged a great tower of solid stonework (pl. XIII, 1 and 2). Only half of it has so far been cleared, but it seems to be circular, with a diameter of c. 8·5 m. It impinges on the back of the great wall, but the relation between the two has not yet been established, as the clearance is not complete. The exterior face of the wall is free-standing, and excavation had to be suspended at the end of the season before the contemporary surface was reached. As the photograph (pl. XIII, 2) shows, the face has two concentric skins, and against the outermost is another partial skin associated with a structure built against the tower on its north-west side. The question

as to whether the two skins and the adjacent structure are contemporary is another which had to be left to next season.

This tower adds yet another item to the impressiveness of the architecture of the pre-pottery phase at Jericho. Its construction was certainly a massive undertaking, worthy of the men who built the great wall. Its purpose at this stage can only be surmised. If the circuit of the great wall was strengthened by a series of such towers, the magnitude of the labour and the grandeur of the lay-out becomes indeed startling for a settlement of such an early date.

The cumulative evidence of the four seasons' excavation of the Neolithic levels, therefore, is emphasising the astonishing degree of urban development in the pre-pottery phase. One of the most important finds established this year is the size of the settlement, referred to above. The full details of the economy on which this settlement was based have not yet been established, since much of the material has not yet been studied by specialists. A preliminary study of the animal bones does not suggest that domesticated animals are plentiful.[1] The adjuncts of agriculture, especially sickle-blades, querns and grinders, on the other hand, suggest that agriculture was widely practised, though a report on the finds of grain and grain-impressions must be awaited before it is known how much the wild grasses had been improved by cultivation. But it is safe to draw some deductions from the great development of the settlement. A population on the scale which the size of the settlement suggests cannot possibly have been supported by the natural resources of the neighbourhood. The plentiful water-supply no doubt provided a fertile area to the east of the site. But fields providing sufficient food for such a large population can only have been rendered productive by a system of irrigation, a system comparable with that which distributes the water today to the modern oasis.

The existence of an irrigation system is not only demanded by the size of the settlement, but accords well with the other aspects revealed by the excavations. The magnitude of the labour involved in building the great walls of the different phases, and of the latest discovery, the massive tower, and the suggestion of public buildings such as the possible temple in Trench I, all indicate a highly organised community. Professor Childe has emphasised the connection between irrigation and the progress of communities.[2] Districts which provide opportunities for irrigation both, from its results, provide increased wealth and, from its demands in the way of organisation, stimulate progressive communities and some form of authoritarian government. In this we should probably see the key to the development of pre-pottery Jericho, and the reason why it out-stripped its contemporaries.

Chalcolithic Period

The 1955 excavations on the tell produced little additional evidence for the periods which followed the pre-pottery stage, those of the Neolithic

[1] F. E. Zeuner, *P.E.Q.*, 1955, p. 70. [2] *Man Makes Himself*, p. 123.

Air view of Tell, March 1954. By courtesy of the Arab Legion Air Force.

1. Neolithic stone tower from S. On left, earlier Neolithic town wall.

2. Neolithic stone tower from N.

1. Remains of Neolithic wall in site M, possibly continuation of later Neolithic town wall.

2. Detail of large orthostat in Neolithic wall in Site M.

1. Square E.I. Neolithic house, with courtyard in foreground.

2. Square E.II. Neolithic rush mat.

1. Square E.V. Neolithic rush mat, with trace of white ant.

2. Square E.I. Two superimposed Neolithic rush mats.

1. Late Chalcolithic Tomb, with Intermediate Early Bronze–Middle Bronze Tomb cut into it.

2. Detail of roof of Intermediate Early Bronze Middle Bronze Tomb cut into fill of Late Chalcolithic Tomb.

a. Burnt fallen timbers in Early Bronze Age structure, Trench III.

b. Trench II. House of Intermediate Early Bronze–Middle Bronze period.

1. Trench III. Ash level against Early Bronze Age town wall.

2. Trench III. Middle Bronze retaining wall, buried beneath plastered scarp.

1. Trench II. Structural walls in fill beneath plastered scarp

2. Trench III. Small rooms built above fill but beneath plastered scarp

1. Trench III. Retaining wall beneath plastered scarp with, right, small rooms built against it.

2. Trench III. Skeleton of decapitated woman on floor of small rooms.

1. Burial in square-shaft type of Intermediate Early Bronze-Middle Bronze Tomb.

2. Head of skeleton in Intermediate Early Bronze–Middle Bronze Tomb, with bronze band round skull.

1. Neolithic face-bead.

2. Neolithic clay seal.

period in which pottery appeared and of the Chalcolithic. The existence of those two separate phases was however emphasised. It will be remembered that in most of the areas excavated the first evidence of the pottery-Neolithic phase comes from great pits, dug when the newcomers started to build solid structures, and therefore to require material to make mud bricks; in so doing they removed most of the evidence of their first occupation of the tell, which a few undisturbed areas showed to be of a camping nature. A study of the pottery from these pits shows that it can be clearly distinguished from a considerable quantity of other pottery, certainly ante-dating the Early Bronze Age, which has now been found, which equates with the pottery assigned by Professor Garstang to his Level VIII. No intact levels containing this pottery have been found, and it is in fact very rare on the west side of the tell. But in the great mass of earth incorporated in the make-up of the Middle Bronze Age defences at the north and south end of the tell, a considerable amount of this pottery has been found. On the evidence of the trench on the west side of the tell, this was almost certainly derived from clearing away all earlier accumulations to bed-rock, outside the stone revetment which formed the base of the Middle Bronze defences. It is therefore to be presumed that when the removal of the Early Bronze Age levels in these other areas has been completed, levels of the Chalcolithic phase will be reached. The occupation was perhaps on a smaller scale than that of the two Neolithic periods, and was concentrated towards the spring on the east side, leaving the west side of the tell unoccupied.

The culture represented by Professor Garstang's level VIII does not immediately precede the Early Bronze Age. In 1953 a large multiple-burial tomb, A.94, was excavated in the cemetery area[1]. A date for this of 3260 B.C ± 110. was given by a Carbon-14 analysis of some charcoal[2]. This tomb can be assigned to the Late Chalcolithic period, and it contained material closely resembling that from tombs of the period at Tell el Far'ah, near Nablus, though lacking the Esdraelon ware found there. The culture probably forms one element in Professor Garstang's level VII, but again the occupation on the tell may have been on a comparatively small scale, for it seems to be lacking on the west side.

In 1954 a second large tomb of the period, A.114, was found, and this year two further tombs, K.1 and K.2, were found. All these tombs show similar burial customs, with multiple burials and a piling of the bones, especially of the skulls, after the flesh decayed. A point of considerable interest was provided by Tomb K.2. In it, all the finds, bones and offerings, were contained in an exceedingly hard deposit, identified by Professor Zeuner as a formation of gypsum. Professor Zeuner interpreted this formation as evidence of the previous presence of water in the tomb, which had gradually evaporated as the result of a lowering of the water-table. Such a lowering

[1] *P.E.Q.*, 1953, pp. 91–2. [2] *P.E.Q.*, 1954, p. 67.

of the water-table would agree with the evidence that there was considerable erosion of the sides of the small wadis in which the tombs were dug, for all tombs of the third millennium and earlier have lost their roofs. An erosion of a metre or more of the soft rock can be deduced.

The early date of this lowering of the water-table is established by the fact that into Tomb K.2 was cut a tomb of the Intermediate Early Bronze-Middle Bronze period, dating to approximately 2000 B.C. The gypsum deposit had already solidified to such an extent that the roof of the later tomb was actually cut not in solid rock but in the fill of the earlier tomb (Pl. XVII).

Erosion such as is suggested by the evidence of the tombs very often goes with deforestation. It is therefore interesting to find on the tell evidence for very extensive use of timber. A complex of burnt beams, apparently fallen from the roofs of buildings, was found in a considerable number of layers (Pl. XVIII, 1). Still more interesting was the fact that at several stages the mud-brick town walls had an elaborate lacing of transverse and longitudinal timbers. Such an extensive use of wood may well have denuded the surrounding hill-sides. It seems probable, therefore, that much of the deforestation of Palestine, which has long been postulated by experts in environment, may date from the period of urban development in the Early Bronze Age.

Early Bronze Age

The examination of the Early Bronze Age remains on the tell was concerned with an area of houses in the north-east section, and with the defences in the three trenches on the north, west and south sides. In the houses, a number of structural phases were cleared, of considerable complexities in alterations and rebuilding. A constant feature was the large number of brick-built storage silos, and of large jars sunk in the floors of the rooms.

In the west trench, the clearance of the town walls of the Early Bronze Age had been completed in previous seasons, and it will be remembered that seventeen phases had been identified. New features were however revealed in the clearance of the slopes outside the walls. In 1954 it was established that the latest wall had associated with it a double ditch at the foot of the slope. Further excavation showed that a ditch was also associated with at least three early phases.

The north and south trenches fully confirmed the complexity of the history of the town walls of the period. In each case, a number of very substantial rebuildings has been identified. The excavation of the walls is not yet complete, and it is not yet possible to say to what extent the different phases in the three trenches can be linked.

The walls in the south trench were especially remarkable for the fact that on at least two occasions they were violently destroyed by fire. On one

of these occasions, the conflagration was so tremendous that the bricks of the wall, 4·5 metres thick, were reddened right through the core, aided no doubt by the burning of the timbers bonded into it, referred to above. The conflagration was apparently caused by the piling against the wall of a great mass of brushwood, a mass so great that the powdery white ash resulting from it forms a band over a metre thick against the face of the wall (Pl. XIX, 1). Presumably this was the work of some of the numerous enemies whom the care lavished on the walls of the period show to have caused the inhabitants of Jericho constant anxiety.

One feature revealed in the south trench throws an amusing side-light on early excavations in Palestine. A circular shaft sunk into the core of the Early Bronze wall, filled with obviously modern debris seemed very difficult of explanation, until Mr. Stewart Perowne suggested it might be the work of Sir Charles (then Captain) Warren, excavating on behalf of the Palestine Exploration Fund. A search in his report proved this to be the fact. Warren describes how he sunk a pit at the south end of the mound to a depth of twenty feet, encountering a layer of charcoal at ten feet, a description which exactly fits the shaft. Warren concludes by remarking that nothing further was likely to be found on the site. The excavation technique of 1871 did not enable the excavator to recognize mud-brick walls. On the other hand it must be pointed out that the current clearance on Ophel has shown how accurately Warren's shafts there, which the clearance has revealed (and which inspired Mr. Perowne's guess at Jericho), enabled him to trace the stone walls of that site.

Middle Bronze Age

The sequence of events following the end of the Early Bronze Age established in the excavation of the west trench was confirmed in the north and south trenches. In both of them the ruins of the Early Bronze Age walls were overlaid by houses of the Intermediate Early Bronze-Middle Bronze phase, cut into them in a series of terraces. One room was quite well preserved, with a socket in the doorway, grinders let into the floor, and jars in position in the corners of the room (Pl. XVIII, 2). As found elsewhere, the architecture was poor, with the walls only one brick thick.

In both trenches again, these remains were buried beneath the great earthen bank with plastered surface, which is the principal surviving component of the Middle Bronze Age defences. A new feature revealed, in both the north and south trenches, was that the earthen bank was strengthened by rough rubble walls running up the slope of the mound (Pl. XIX, 1), presumably to counteract movement in the great mass of the filling.

A puzzling feature revealed in the south trench was an intermediate and apparently unfinished phase in the construction of the earth bank. Elsewhere, the bank formed the direct make-up of the plastered scarp which ran from a revetment at the foot to the wall which crowned the edge of the

mound.[1] But in the south trench there was a massive wall, certainly contemporary in construction with the earth bank, ending halfway across the trench and sealed by the plastered scarp (Pls. XIX, 2, XXI, 1). This might have been interpreted as an intentional strengthening internal structure, if it were not for the fact that against this wall, and overlying the lower part of the earth fill, was a series of rooms, small in size and irregular in plan (Pl. XX, 2). They were certainly occupied as rooms, as there were ovens in position on the floors, and several ashy occupation layers. Extensions of the trench were made to the east and west to try to find the explanation, but produced no solution. It can only be suggested that during the construction of the earthen bank, which for the whole circuit of the tell must have been a prodigious and lengthy labour, there was a suspension of work in this sector; during the suspension someone might have squatted on the lower part of the slope and built a shack; then when work was finally resumed there was a slight change of plan, and the foot of the revetment was carried somewhat farther down the slope, the earlier wall, perhaps originally intended as the revetment being buried. A somewhat fanciful explanation of another odd find in the area might amplify this interpretation. Against the massive wall, and on the floor one of the little rooms built against it, was the skeleton of a woman, middle-aged (at least thirty-five) by the standards of the time, who had been beheaded, though her head was placed approximately in the right position Pl. XXI, 2. Perhaps she was the builder of the intrusive structures, and perhaps her action drew down upon her the wrath of those responsible for the defences.

Work also proceeded on Site H on the east side of the tell, the only area in which Middle Bronze Age houses have survived denudation. The structures of the last Middle Bronze phase, destroyed by fire early in the sixteenth century B.C.[2] were removed. Beneath were earlier houses, with at least two structural phases, also belonging to the Middle Bronze Age, which followed the same street plan. The remains of this period have not yet been completely removed.

Cemetery Area

Excavation in the cemetery area produced more tombs of all periods from the Late Chalcolithic to the Middle Bronze Age. The tombs of the latter period, though not so rich as those found in previous seasons, again contained the remarkably-preserved wooden, basket-work, and textile objects characteristic of the Jericho tombs. They enabled Professor Zeuner to carry out experiments to ascertain the cause of preservation, which will be reported upon in a subsequent issue.

Some of the most interesting tombs discovered belonged to the Intermediate Early Bronze-Middle Bronze period. It will be remembered that

[1] *P.E.Q.*, 1952, pp. 70–1.

[2] *P.E.Q.*, 1954, p. 61.

in previous seasons, two quite distinct types of burial of this period have been found. All are of individual burials, in strong contrast to the multiple-burial tombs of the Early Bronze and Middle Bronze periods at Jericho. In one type, the tomb is neat and small and contains a single articulated skeleton, or sometimes two, and the grave-goods consist of a dagger or a pin and beads. In the other type, in which the shaft and chamber are very large, the skeleton is disarticulated, and the offerings consist of pots. This year, two new types were found. In one, distinguished by a rectangular shaft, the skeleton was intact, and the grave-goods included both daggers and pottery. In the other, the tomb was poorly cut, the skeletal remains scattered and scanty, and the objects found very poor, consisting only of bronze fragments and beads. The square-shaft type of tomb is especially interesting, in that it corresponds with one type found at Tell Ajjul, that of the 1500 cemetery.[1] This would appear to confirm the view[2] that the different burial customs represent different tribal groups, not all of whom are found everywhere in Palestine.

Two tombs of the period, both of the square-shaft type, were of especial interest. One contained besides a dagger and pottery, a javelin, a weapon which is also found at Tell Ajjul and Tell Duweir. The type is not exactly the same, since it has not got the spear-shaped head but a pike-head, but it has the same characteristic curled end to the tang.

The second tomb contained the burial of an elderly man, whose upper jaw was completely lacking in teeth. Beside him was a dagger, and against his head a jar, unusual in having a loop-handle instead of ledge-handles. Round his head was a copper band (Pl. XXII, 1, 2). This may represent a simple crown, or may be the binding of a cap of leather or textile which has disappeared. In any case it is probably to be taken as a badge of rank, and it is probable that we have here the burial of one of the tribal leaders of those nomads who broke into Palestine at the end of the third millennium, to destroy the Early Bronze Age civilization.

Excavations are planned to continue in 1956, when it is hoped above all to make further progress in investigating the beginnings of the first Neolithic settlement on the site.

[1] *Ancient Gaza II.* W. M. Flinders Petrie. [2] *P.E.Q.*, 1953, pp. 92–3.

NOTES ON THE BRONZE AGE TOMBS OF JERICHO. I

By F. E. Zeuner

The remarkable preservation of human and other organic tissue in the Bronze Age tombs of Jericho has been reported upon by Dr. Kenyon (1952, 1953, 1954), and excellent illustrations have appeared in this journal (see 1952, Pls. 22 and 23; 1953, Pl. 44). At first sight one is inclined to attribute such preservation to the extreme dryness of the climate of the Jordan valley. When the writer began to study some tombs of the J group (J 14, J 19–21) during the 1954 season, primarily with a view to obtaining material suitable for radiocarbon dating, it soon became clear that the preservation poses a difficult problem and that conditions are of the most unusual kind.

Contrary to expectation the humidity in the tombs proved to be high. This can only be due to their position close to small dry wadis which geologically occupy a position similar to that of Ain-es-Sultan, the spring of the Tell of Jericho, and are connected with a water-table that descends through Lightning Ridge. The spring of the Tell is still flowing; those of the wadis in question, however, are now dry, but the water-table is still near enough to the surface to supply humidity.

Surface vegetation.

Under these conditions one would expect to find dense vegetation on the site. It is covered to-day by a large refugee village which prevents plant growth completely. But for some time before this was erected in 1949, desert-steppe vegetation had covered the slightly undulating surface of the Senonian limestone. Profiles of the modern soil were studied in all the shafts leading to the tombs. As an example, that of J 21 is as follows:—

Soil Section in the shaft of Tomb J 21.

0–12 cm. Light brownish-white dusty A-horizon. 12 cm.

12–42 cm. Fragmented limestone with earth in fissures, earth consisting of fine crumbs produced probably by termites or ants. Darker than A. 30 cm.

42–72 cm. Limestone, very white, with illuvial lime: Ca-horizon. 30 cm.

72–112 cm. Limestone with diffused iron-staining on fissure surfaces. 40 cm.

Below 112 cm. Limestone with many cracks. *c.* 300 cm.

This is a Grey Rendzina (Serosem; Kubiena 1953, No. XXVII), and suggests a vegetation of sparse desert scrub, and with roots penetrating to a

considerable depth. The roots naturally chose the cracks and fissures of the rock, along which they reached, for instance, the vault of tomb J 14 at a depth of 3·5 metres. Two types of impressions are to be seen; one a coarse irregular network, the other of mostly parallel vertical and undivided root impressions. The second type is suggestive of certain monocotyledons, and possibly of palms.

The cracks are lined with a grey calcareous clay formed by the weathering of the limestone, and the roots are mainly confined to the surfaces of contact between rock and clay. It is difficult to believe that this clay is the product of the present-day weathering that does not go beyond the stage of a grey rendzina. It corresponds almost certainly to a period of more intense soil formation than that of the present day, i.e. to more humid conditions. Whether the root-impressions are contemporary with the clay formation and therefore ancient, or of a more recent date, is impossible to say. Their freshness is in favour of a recent age, the absence of organic matter in the impressions pleads for their antiquity. This question is of some interest, since it would be important to know what type of vegetation covered the limestone flats in the neighbourhood of Bronze Age Jericho.

The fact that the clayey disintegration along the fissures penetrates to at least four metres below the land surface suggests a prolonged period of vegetation that was denser than the present. There is also evidence of movement of iron compounds to a similar depth. In J 14 small patches of brown hydrated iron oxide were present on the limestone surfaces of the fissures which showed that highly dispersed colloidal iron solutions were at one time able to penetrate to that depth. This means that the original soil of this area was one of the types in which iron moves freely, possibly a Terra Rossa, and these all require rather denser vegetation. It is hoped that more conclusive evidence will become available as excavations continue.

The process of tomb construction and the burial.

Tomb J 21, of the Early-Middle Bronze Age interval (EB/MB), was very poor in finds. There was the usual four-cornered clay lamp which an earth tremor had shaken out of its little niche in the left wall. In addition, two small jars were standing about half-way along the right side. The skeleton, without any adornments, was lying on the floor, with the bones no longer in their natural position, and the skull had rolled away towards the wall (fig. 1). No organic matter (other than bones) was present when the tomb was opened, with the exception of certain remains of insects to be discussed later.

The plan and the vertical section of J 21 are to be found in figs. 1 and 2. The lack of rockfall and the scarcity of archæological objects made it possible to study the sequence of events that followed the carving of the vault and ended with the burial.

Shaft and tombs were carved into the soft limestone in the manner characteristic of all tombs. The rock varies much in quality. Whilst in

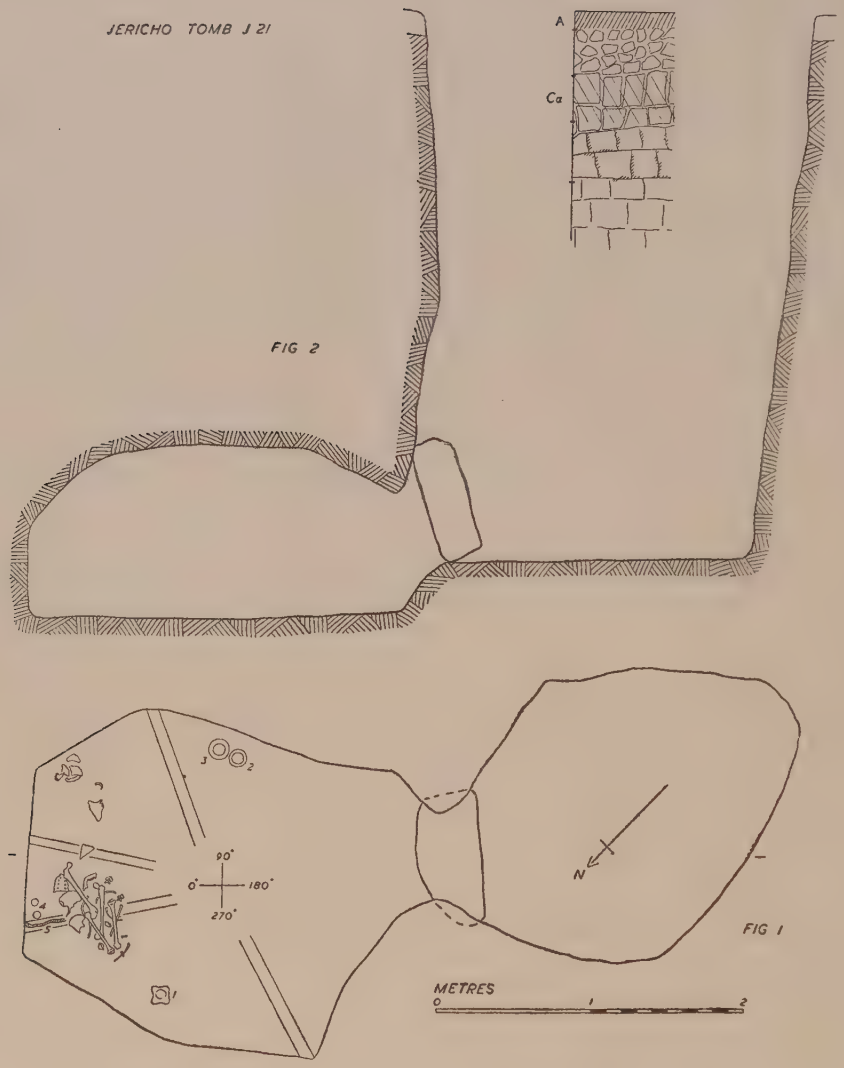


Fig. 1. Plan of the E.B./M.B. tomb of J 21. Trenches in the sediments indicated by parallel lines. 1. Pottery lamp. 2 and 3. Pottery jars. 4. Ant-lion funnels. 5. Termite corridor.
Fig. 2. Vertical section of the same Tomb, with soil section in the shaft.

some places it was soft and marly, that of the J group was harder, with veins of flint. But as these tombs lie on one of the major faults of the Jordan Rift, it cannot surprise one that the rock is crushed and riddled with small faults.[1] In many tombs, therefore, earthquakes have caused serious rockfalls and in most the roof is in a dangerous condition. For this reason, evidence for the manner of construction of the tombs is scarce. Where pick marks and scratches occur, they prove that the surface in question is original, a matter of some importance not only because of the initial shape of the vault, but because on such surfaces there can be studied processes of alteration and disintegration that have taken place since the tomb was first hollowed out.

In J 21, pick marks were present on the roof. They were about 2 inches wide, very flat and showed pronounced longitudinal striation, suggestive of a jagged edge. Such an edge would naturally be present in a flint tool but since traces of oxidised bronze were found at the end of some pick marks in J 14, it is evident that metal tools were used. Both cut marks and fractured surfaces of the vaults are often covered with a fine white powder (especially noted in J 14) which consists of calcium sulphate (gypsum). This must have formed not long after the tombs were cut, for the surfaces exposed by subsequent falls of rock from the roof are devoid of it. Moisture contained in the rock may have dissolved gypsum which is present in it in varying quantities and carried it to the surface.

A much more conspicuous phenomenon in J 21, however, is a brown band which begins at floor level about 50 cm. from the entrance, rises to 70 cm. above it on the wall opposite it (360°)[2], and descends on the other side to floor level, which it reaches about 50 cm. away from the entrance. Above this band the rock is fresh and bare. The band itself consists of small gypsum crystals which are stained brown with iron. In several places the crystals are large, up to 1 cm. long, beard-like and white, indicating a more ample supply of water from the wall. They also establish the important fact that the band was not formed by water standing in the tomb but by moisture oozing from the wall. Moreover, if this band had formed from standing water, its upper border would be horizontal. Since it is lowest at the entrance and highest farthest away from it, evaporation must have been somehow related to the entrance. Evidently, with the doorstone in position and the shaft filled in, the evaporation rate would be the same everywhere in the tomb. The drop of the gypsum band towards the doorway, therefore, can be explained only by the assumption that the door was open to the air, and indeed the sun, while the crust of the brown band was forming.

The formation of such a gypsum band is not a matter of hours or a few

[1] This, incidentally, enabled the Bronze Age people to excavate the tombs comparatively quickly.

[2] In order to assign positions in the circular tomb, the angle of deviation from the horizontal axis is given, counting clockwise from 0° to 360°. The axis is the line from the middle of the doorway through the centre of the tomb to the opposite wall. See plan, fig. 2.

days. It must have taken at least several weeks. Two conclusions emerge from this, namely, that (*a*) the tomb was left open for several weeks (presumably to dry out) and (*b*) there must have been abundant moisture in the lower part of the tomb wall. This moisture is most readily explained by the assumption that the tomb was cut into what was then the winter level of the water-table. The sinking of the shaft would lower it near the entrance, and a moisture gradient was thus created in the tomb wall, indicated by the drop in the gypsum band towards the entrance.

The conclusion that the tomb stood open for some time immediately after it had been carved from the rock is substantiated by other observations.

There was very little sediment on the tomb floor, a few centimetres only, but near the wall this increased, the maximum thickness observed being 10 cm. at 70°. Through these deposits trenches were cut at 10°, 70°, 240° and 350°, the first passing one of the shoulder-blades of the skeleton, the last crossing the middle of the bone heap. In view of the thinness of the deposits, great care was taken in carrying out this excavation on the micro-scale, and the results proved worth while.

It was found that the brown band does not stop where the wall joins the floor, but extends on to it over a distance of up to 10 cm. The remainder of the floor was different, consisting of somewhat disintegrated, whitish, powdery limestone, except for a few small patches with a crust of gypsum crystals. Since the crystals occur only on clean surfaces of rock, it appears that during the drying-out dust covered the floor near to the edge of the wall. There is no rock rubble anywhere that could be regarded as left behind after the carving-out of the tomb-chamber had been completed. The chamber therefore was very carefully cleaned after completion and only a small quantity of fine dust left, perhaps where it clung to the wet floor. Wet conditions are to be inferred from the fact that this dust was caked to an extent that it almost simulated a mud-plastered floor. This was particularly evident at 350°, beneath and around the skeleton. The irregular distribution of the caked dust and its small quantity, the thickness being no more than one or two centimetres, argue against an intentional plastering. Moisture from the rock-floor, with gypsum in solution, accounts sufficiently for the caking.

Around the periphery of the floor, varying amounts of loose dust, mixed with small rock fragments, were piled in shallow heaps against the wall. As they covered the lower portion of the gypsum crust, they must be later than the drying-out. The origin of this second layer of dust is evident in a country where dust is blown about every day by the wind, and in large quantities. During the recording and cleaning of a tomb-chamber, which takes a few days, much dust is blown into the chamber from outside, settling on the objects and making the taking of clean sample specimens a difficult matter. That blown sand should have reached the tomb-chamber while it was standing open and drying-out is thus evident. That this dust should have naturally accumulated around the periphery, however, is unlikely, and

its concentration in shallow random heaps rather suggests that it was brushed aside from time to time.

The last brushing immediately before the skeleton was deposited, however, was not directed against the back wall, for at 350° unambiguous evidence was found that the tomb had been standing open and that light got into it. In the loose dust, there were two conical depressions, about 3 cm. in diameter, of the type constructed by so-called ant-lions, predacious larvae of neuropterous insects of the family Myrmeleonidae (fig. 1, no. 4). These larvae have powerful pinching and sucking jaws, sit at the bottom of the funnel and wait for any passing insects, mostly ants, that might perchance fall into the trap. The insects are seized, sucked out, and then flicked out of the funnel by a sudden movement of the head, so that the vicinity of the funnel is strewn with the bodies of the victims. These bodies were indeed present in the tomb around the funnels in question. They belonged to ants of the genus *Cataglyphis* Förster. Since ant-lions live in loose dust in daylight, the inference to be drawn from this episode is that the tomb stood open sufficiently long for the ant-lions to hatch from eggs laid there by an adult insect and to grow to a size large enough to build the funnels in question, probably a matter of at least two weeks, and perhaps somewhat more. They arrived on the scene, of course, only after the tombs had dried out.

The next event in the history of Tomb J 21 was the deposition of the skeleton. It belongs to the period intermediate between the early and middle Bronze Ages (EB/MB), of about 2,000 B.C. Whilst many EB/MB tombs contain burials of whole bodies, J 21 (and others) contain a heap of bones that can have been deposited only after disintegration. The broken skull lay near the wall at 40°, most of the remainder between 320° and 360°. The heads of the femora lay far above the acetabula of the pelvis, the shoulder blades farther towards the skull in an isolated position, and the long bones of the legs were on top of a jumble of ribs, vertebrae and bones of the arms. When the skeleton was laid out, most bones proved to be present. Only one ulna was missing, and a number of bones of the hand and feet. The right portion of the mandible was in fragments. The bones were extremely brittle and appear to have belonged to a male person about 30 years of age.

The distribution of the bones on the floor and the absence of some showed that they were brought in in a skeletized condition; they were in the main deposited in a close heap, except for the shoulder-blades, the left mandible and the skull which lay some distance away. The skull, close to the wall, was broken, which suggests that it rolled against the wall and was smashed. If this is the correct interpretation, the bundle would have been thrown down rather than deposited with care, and perhaps with the left hand, spilling some of its contents, including the skull that rolled towards the right against the wall.

There is no trace of the container in which the bones were brought in. If

the skull rolled out of the parcel as suggested, a stiff material, such as a reed mat, is the most likely.

This container was almost certainly left behind with the bones. Some time after the tomb had been closed, termites[1] penetrated to the chamber, entering through a fissure at 330°, building a corridor straight down to the floor and across to the skeleton. Since termites do not eat animal matter, vegetable material must at one time have been associated with the skeleton and been eaten up by them. In the process some bones became covered with crumbs of earth used by the termites in constructing their covered alleys. When no more edible matter was left, the termites withdrew. The fine earth around the bones was slightly caked on the surface. Whether this was due to moisture rising from the floor, or to the activities of the termites, is impossible to say.

Apart from the bones of the skeleton, the only organic matter present was small fragments of charcoal. They were observed at 70° and formed part of the cemented layer. Several views may be held regarding their origin, and it would be futile to discuss them. It is, however, certain that they were not associated with the burial itself.

The only other event that affected this tomb was an earthquake that dislodged the pottery lamp from its niche. It fell on the floor upside down (fig. 1, No. 1).

The great interest attached to J 21 is in its simplicity. It contains a single burial, and the sequence of events, beginning with the carving out of the tomb, could be reconstructed. Unlike other EB/MB and especially Middle Bronze Age tombs, it contained no organic matter like human or animal flesh, basketry, wood, leather or the like, such as are preserved in such vast quantities in MB tombs.

Nevertheless, the tomb atmosphere did not consist of ordinary air. As in the tombs containing plenty of organic matter, it was difficult to work in this tomb, for one was apt to become drowsy. This curious fact, therefore, could not be due to gases produced by the decomposition of organic matter; its origin is clearly not in the contents of the tombs. Some confirmation of this was obtained from the layer of caked dust which when scraped away emitted a strong bituminous smell. It is conceivable, therefore, that bituminous gases enter the tomb cavities from the limestone, which itself is bituminous, and it is possible that these are concentrating and rising on the system of faults of the western flank of the Jordan Rift, on which the tombs happen to be situated.

The Preservation of Organic Matter in MB Tombs

Several of the EB/MB tombs contained perishable organic matter, such as skin, flesh, leather and wood, but the quantities were very small. Very little mortuary equipment was found in them. Where food offerings were

[1] They appear to belong to *Hemitermes*.

present, the meat did not appear to have been roasted (as was the case in the MB tombs), since there is no trace of charring and roast meat was not found. The small total amount of organic matter deposited in these tombs, therefore, disintegrated more or less completely.

In contrast to this condition, the multiple burials in the MB tombs were accompanied by a wealth of mortuary equipment comprising pottery, wood, matting, basketry and food, wig-materials and textiles. Roast meat is commonly preserved, and parts of the skin and flesh of the human bodies, and occasionally hair are preserved. The brain is very often found in the skull in a shrivelled condition.

Three tombs belonging to this group were studied in detail. The floor of Tomb J 14 was more than 5 metres below the surface, and it had suffered much from rockfall, nevertheless the organic matter was still identifiable. Termites had entered the tomb, and their structures of mud corridors were coming down the cracks, and hanging from the roof. There were no passages down to the wood, however.

J 19 was a small shallow tomb, the floor being 2·4 metres below the surface. The doorstone had not been put into position but was resting against the back of the shaft, and much shaft filling material had entered the tomb. In spite of its closeness to the surface, much organic matter had survived in this tomb. There were three burial layers.

J 20 was about 3·5 metres deep and there was heavy rockfall. The lower part of the rockfall formed a dense layer, *c.* 20 cm. thick, of white rock powder with fragments of stone. It rested on the skeleton level, which was *c.* 5 cm. thick and contained a comparatively small amount of organic matter. This in turn lay on 10 cm. of grey earth containing a skeleton apparently of EB/MB age. The earth must have been deliberately put in in MB times to cover the earlier burial, for there is no obvious source inside the tomb from which this fill may have been derived.

Under conditions of high humidity and temperature one expects rapid bacterial and fungal decomposition. Indeed, since no body has yet been found in any of these tombs that was in a fairly complete state of preservation, such decomposition must have occurred at the beginning and come to a standstill after some time, when part of the flesh, skin or internal organs were still present.

Similarly, wood is found in all stages of decomposition, ranging from almost completely preserved pieces of boards with only small worm holes (not from termites, probably caused by beetle larvae) through partly termite-eaten wood to those that have completely vanished and are indicated only by bone ornaments or bronze studs. Wood was attacked not by insects only, but by fungi, apparently mainly dry rot. These produced a shrinkage and powdery condition which render the preservation of such objects very difficult.

The wood provides more information relevant to the preservation problem than do human and animal flesh. That dry rot flourished on it proves that

for a time fungi were able to exist in the tombs. But not all wood rotted, and different species (hawthorn, tamarisk, willow) varied in their ability to resist. The termites also attacked the wood selectively, depending on palatability.

Termite-infested wood from the tombs has the characteristic intact surface layer which is left by these insects as a protection against light and to maintain high humidity in their burrows. Neither would have been necessary in the tombs. This does not argue against termites, it merely shows the instinctive character of their action. In the same manner, the termite corridors on the roofs, walls and floors of the tomb are completely closed as if built in plain daylight. Eventually, however, every trace of wood would have been eaten up, had the termites not abandoned this source of food.

It is conceivable that some parts of the wood bore a surface impregnation of paint or bituminous matter that is no longer visibly present. This question requires attention; it can evidently be tackled only in the tombs before the objects are impregnated with wax for removal. It is not possible, however, to explain in this way the survival of parts of boards which had been attacked from one end. Here it becomes clear that to begin with, the termites invaded the wood from one particular point (in the case of table planks, for instance, the peg hole of the leg), started to carve it out, but abandoned it after some time. Somehow, conditions in the tombs must have become unfavourable for the termites. The preservation of much reed matting and basketry supports this conclusion. Both flesh and wood, therefore, suggest that, after an initial phase when decomposition was possible, it came to a standstill before it was completed.

There is only one explanation conceivable, that a preservative entered the tomb or became concentrated in it, stopping the processes of biological destruction after some time.

The presence of excess carbon dioxide in the tomb air.

Such preservative could be present either as a natural impregnation in the material, or else the tomb air became enriched with a gaseous antibiotic. Since there are no inorganic preservatives available in the tomb context, organic liquids or gases remain as possibilities. The presence of organic impregnation in semi-decomposed organic matter is difficult to prove, whilst that of gas is easier.

The first indication that the tomb air did not have the same composition as ordinary air was the experience of all excavators that one became drowsy when working in a tomb for a prolonged period. This has been mentioned of J 21, and it applies equally to J 14, J 19 and J 20.

The second and more definite indication was provided by the fragment of shell of an ostrich egg which was found in J 14 exposed to the tomb air. Its outer surface still had the characteristic yellow hue and gloss of ostrich egg. Nevertheless, it was corroded here and there, being covered with pits of pin-head size which often penetrated down to the white layer. On the

inner (concave) surface corrosion had eaten its way down between the vertical crystals composing it. Egg-shell is composed of calcium carbonate, which is easily corroded by acids, hence the presence of carbon dioxide in the tomb air was suspected which, with the high humidity of the air, would form carbonic acid that could produce the corrosion whenever a slight drop in temperature caused condensation. That this must have occurred very often is evident, for the tombs when first entered are often wet.

An experiment was therefore improvised to establish the presence of excess carbon dioxide in the tombs. The necessary pieces of equipment were borrowed from the Government Laboratory and the Augusta Victoria Hospital in Jerusalem and a pumping unit constructed for the extraction of tomb air and its passage through lime water. A sampling tube was pushed through a small hole beside the doorstone into the tomb vault, before the removal of this stone. Air was then sucked through a bottle of limewater by means of a specified number of strokes of a hand-pump. A control experiment was carried out with plain air above the tomb. The results obtained were relative to open air, therefore. But since the latter is known to contain 0·03 per cent. of CO_2, the approximate value for the tombs can be calculated.

Only two tombs could be tested, as it was late in the season, namely, J 20, a MB tomb, and J 21, the EB/MB tomb described in the first part of this paper. J 20 had been reached two days before the experiment but kept closed except for a very small accidental hole which the excavator, Miss D. Kirkbride, had stopped immediately. J 21, however, reached the day before, had a hole about one foot square made by the workmen. They had closed it somewhat inefficiently, so that at least some tomb air must have escaped.

The results, calculated as explained, were as follows:—

Air above tombs	0·03 per cent. CO_2.
Tomb air, J 20	0·35 per cent. CO_2.
Tomb air, J 21	0·05 per cent. CO_2.

It is thus evident that J 20 contained about 11 times the normal amount of carbon dioxide. J 21 had only 1·7 times as much, clearly the consequence of escape through the large hole the workmen had made, and it is advisable to disregard it for this reason.

The result of J 20 confirms the suspicion that arose when the egg-shell from J 14 was studied. CO_2 appears to be present much in excess, compared with ordinary air.

Nevertheless, it is impossible to attribute the preservation of organic matter to a concentration of only 0·35 per cent. of CO_2 in the tomb air. Even human beings are not seriously inconvenienced by it, and the bacterial and fungal flora would flourish on it. Whilst its presence therefore does suggest that the tomb air is not normal, there must be some other component which is responsible for the preservation of perishable organic matter. What

this is will have to be investigated, and the writer is planning apparatus to tackle this problem in the next season.

Some speculation is perhaps admissible. There are two possible sources for gases contained in the tomb. The first is the tomb contents themselves, since decomposition of organic matter under alkaline conditions (as would appear to obtain in the tombs) produces carbon dioxide and methane in the ratio of 3: 7. It will therefore be necessary to test for methane and determine this ratio.

On the other hand, both methane and carbon dioxide occur in natural gas. The presence of natural gas in the tombs of Jericho is possible, or even probable, for two reasons. First, the local Senonian limestone contains bitumen in sufficient quantity to produce a distinct smell when freshly broken. There are beds (though not near the tombs) where the concentration is much higher, the limestone becoming chocolate-brown and carvable. A stone vase cut from this limestone was found in J 14 (No. 124). Moreover, at Mt. Nebi Musa, combustible limestone occurs which has repeatedly been considered as possibly of economic value. Whilst this expectation did not materialise, analytical results established the presence of both methane and carbon dioxide in that limestone.

Moreover, the tombs happen to lie on the series of faults bordering the western edge of the Jordan Rift valley. It is for this reason that both tell and tombs have experienced innumerable earthquakes, and it must be expected that natural gas should concentrate and rise on these faults and diffuse into the tombs.

On the evidence so far available it cannot be decided which alternative is right, that of self-generation in the confined space of the tombs, or the geological one of intrusion of natural gas. Either would, or could, explain the remarkable preservation of organic matter.

References

Kenyon, K. M., 1952. Excavations at Jericho, 1952. *Palestine Explor. Quart.*, May/Oct., pp. 62–82.

——, 1953. Excavations at Jericho, 1953. *Palestine Explor. Quart.*, May/Oct., pp. 81–95.

——, 1954. Excavations at Jericho, 1954. *Palestine Explor. Quart.*, May/Oct., pp. 45–63.

Kubiena, W. L., 1953. *The Soils of Europe* 317 pp.—London.

Birds in the Old Testament

II. BIRDS IN LIFE

By G. R. Driver

An attempt may now be made to determine the identification of the Birds mentioned in the O.T., though not found in the lists of unclean birds in the Pentateuch.

The *yônāh* "dove" derives its name from a √*ȲNH* (cp. Heb. *'ānāh* "mourned") indicating a moaning sound; for there are several references to the mournful cooing note of this bird (Is. xxxviii 14 lix 11 Nah. ii 8)[1]. The *columbidae* as a class are large pigeons with long wings, that of the male rock-dove sometimes measuring as much as 240 mm.[2]; thus their size and their colour, grey above and white beneath, will explain the comparison of them to outspread sails (Is. lx 8). They are able to cover immense distances at great speed in search of food, a habit from which the homing instinct has been developed[3]; and there is an allusion to this in the comparison of the returning exiles, when "they shall come eagerly like birds from Egypt and like doves from the land of Assyria" (Hos. xi 11). Their pronounced courtship, when each bird takes the other's beak in its own and they bring their heads together almost like human lovers, has made them a symbol of amorous endearments (Ct. ii 4 v 8 vi 9; cp. i 15 iv 1)[4], while their silliness (Hos. vii 11) is seen in their extreme familiarity with man and the readiness with which they allow themselves to be caught and domesticated. The description of "the wings of a dove covered with silver and her pinions with yellow gold"[5] (Ps. lxviii 14) probably refers to the rock-dove or rock-pigeon[6], which has throat nape and

[1] Thus the character of "dismal Jonah" is reflected in his name, like those of many other *personæ dramatis* in the Old Testament. Is the Arab. *yanā* (*y*) 'was fat and languid' a secondary, originally denominative, verb?

[2] Meinertzhagen "N.B.E." 503.

[3] Tagetmeier "BB" IV, 210–12.

[4] Likewise the Gr. περιστερά, φάσσα and φάττιον, as well as πέρδιξ and περδικόμματα, are used as terms of endearment (Thompson "GGB." 238, 241, 300).

[5] The Psalmist's dove is not a live bird but some richly wrought work of art, like the dishes and goblets chased with figures of wild and domestic beasts in the Ugaritic poem of Baal (B II i 36–41), Nestor's chalice with figures of doves fixed on the handles (Homer *Il.* xi 632–5), and the eagles embroidered in gold on a pair of shoes among the booty taken at the sack of Constantinople (Gibbon); in the same way the dove was part of the spoil which the women divide amongst themselves (for אם תשכבון בין שפתים is shown by the grammar of the verse to be misplaced).

[6] Lat. *columba livia.* The περιστερὰ and *columba* are similarly described by classical writers (Thompson "GGB.". 239–40).

cheeks metallic green with under-wing and rump pure white[1]; and the nidification of a variety of this bird, known as Schimper's rock-dove or rock-pigeon[2], in ledges of caves and holes in rocks or precipitous cliffs of soft limestone explains the advice to the fugitives of Moab to be " like the dove that nests in the sides of the mouth of a gorge " (Jer. xlviii 5; cp. Ezek. vii 16, *si vera lectio*)[3]. Otherwise *yônāh* is presumably a generic term embracing not only the rock-dove (rock-pigeon) but also the ring-dove (wood-pigeon) and the stock-dove, all of which are common in Palestine[4]. Elsewhere in the O.T. the *yônāh* is mentioned only as a bird commonly offered in sacrifice. The Heb. *tôr* or *tōr*, like the Acc. *turtu*, the Gr. τρυγών or τρυγώς and the Lat. *turtur*, all meaning turtle-dove, reflects a cry of " tur-r-r tur-r-r tur-r-r " which is given as that particularly of the Isabelline turtle-dove; this is not found in Palestine, but its cry is similar to that of those that occur there, notably the common turtle-dove.[5] Thus " the voice of the turtle is heard in the land " (Ct. ii 12) refers to this bird's melancholy but soothing ditty. That the turtle and other birds " observe the time of their coming " (Jer. viii 7), which indicates migrants, shows that the common turtle-dove is meant; for the others found in Palestine are resident there all the year round. The name, however, will certainly include all those found in the country, so far as the context allows it to do so. Apart from these passages the turtle-dove, too, is mentioned only as a sacrificial bird[6].

Another word for the dove or pigeon is the name of Job's daughter Jemimah (Jb. xlii 14); for the Heb. *yᵉmîmāh* is the Arab. *yamâmatu(n)* " dove, pigeon." These words, like the Acc. *summatu* " dove " and the Arab. *ḥamâmatu(n)* " pigeon," are based on the sonant *m* which is a characteristic element in a number of roots denoting a low noise; such are the Heb. *dāmam* " moaned " and *hāmam* " murmured," the Syr. *zam(m)* " hummed, whispered " and the Acc. *ramāmu* " to rumble ". The Hebrew noun is probably a dialect-word borrowed from the Arabic language.

The Heb. *ṣippōr*, like the Acc. *iṣṣūru* and the Aram.-Syr. *ṣeprâ* and the Arab. *'aṣfûru(n)*[7], is primarily a generic term for any small bird of the passerine kind. It includes the turtle-dove and the young pigeon (Gen. xv 10) and edible fowl of some kind (Neh. v 18)[8]. When parallel to or contrasted with another specific bird, for example the swallow (Ps. lxxxiv 4, Prov. xxvi 2)[9] or the dove (Hos. xi 11, Lam. iii 52), or song-birds (Eccl. xii 4), the sparrow is probably meant, since the corresponding words in the cognate languages

[1] Meinertzhagen " NBE." 504–5.

[2] Lat. *columba livia palaestinæ* or *columba schimperi*, after which several gorges called *wâdi'-'lḥamâm* " ravine of doves " are named.

[3] Tristram " FFP." 120 and Meinertzhagen " NBE." 504.

[4] Tristram *ibid.* 119.

[5] Meinertzhagen " NBE." 508–9 and Tristram " FFP." 120–1.

[6] For " the soul of thy turtle-dove " (Ps. lxxiv 19) is corrupt.

[7] Baumgartner in *Theol. Zeitschr.* V 315–6.

[8] Or *ṣᵉp̄ārîm* " he-goats " as read by the LXX.

[9] Cp. Bar. (Ep. Jer.) vi 21.

denote also this bird[1]. The *ṣippōr* " that is alone upon the house-top " (Ps. cii 8), however, is not the sparrow, which is not a solitary bird, but the blue rock-thrush[2], a shy lonely bird which ἐπὶ τῶν πετρῶν καὶ ἐπὶ τῶν κεράμων τὰς διατριβὰς ποιεῖται, as Aristotle says[3]; and modern observers describe it as solitary, living among retired ruins and wild unfrequented rocks and caverns, where it sends forth its sweet plaintive melancholy note, but at times coming into the towns, where it may be observed on the topmost ridges of the houses, singing and looking for food[4]. The distinction between *dᵉrôr* and *sîs*, though obscured in most translations, is clear. The *dᵉrôr* " swallow " takes its name, which is composed of a dental *d* prolonged by sonant *r*'s, from the dental " hwit-hwit " or " tit-tit-tit-tit " which that bird gives forth. This identification suits the two passages in which it is mentioned; it is a symbol of quiet peace and security, building its nest beside the altar (Ps. lxxxiv. 4)[5] just as it builds it in England inside chimneys, in corners of pillared porticoes, under rustic bridges, and so on, and of ceaseless unresting flight (Prov. xxvi, 2)[6]. The Heb. *sîs*, like the Arab. *sîs* (or *wiswâs* in Palestine) and the Venet. *zisilla*, all meaning " swift," reproduce the harsh " sree " or " si-si-si " which that bird utters[7]; and so the prophet says " like a *sîs*[8] or an *'āgûr* do I twitter " (Is. xxxviii 14). That the bird intended is not the swallow (LXX; Pesh. at Is. xxxviii 14) but the swift, is proved by the statement that " the turtle and the swallow and the crane observe the time of their coming " (Jer. viii 7); for, while the swallow is a resident, the swift is migrant in Palestine[9]. The same word undoubtedly includes the three varieties of swift recorded in Palestine.[10] The *'āgūr*, which is the other migrant classed with these birds (Jer. viii 7), is mentioned only

[1] Gunkel *Psalmen* 370. Hence LXX's στρουθίον at Ps. lxxxiv 4 Lam. iii 52 and Vulg.'s *passer* at Ps. lxxxiv 4.

[2] Tristram " FFP." 31 and Thompson " GGB." 191–2.

[3] In *Hist. Anim.* IX ix 617 a.

[4] Tristram *ibid.* 31; cp. Bree " BE " I 200–1. The blue-rock thrush is a rather plump insectivorous bird and its singing while looking for food shows that the Heb. *šāqaḏ* " watched " is rightly so translated and must not be explained as meaning " was thin, emaciated " after the Arab. *saqada* II, IV *gracilem, extenuatum (equum) reddidit* (Aharoni in *Osiris* V 471); but *hāyāh* " became " is weak in the context and an onomatopœic *hāyāh* " lamented " may be postulated (Jacob in *ZAtW.* XVIII 293, Mahler in *Leshonenu* XVII 100, Torczyner *LwS.* II 144), from which *hî* " lamentation " (Ezek. ii 10) will come (cp. Is. xvi 2 for another instance of this verb [Mahler]).

[5] Birds fouling the roof of the Temple had to be kept away by spikes fitted on to it (Josephus *B.J.* V v 6 § 224; cp. Mishnah *Midd.* iv 6).

[6] Butler " BB " II 31–2; cp. Tristram " FFP." 61. Are the Acc. *durāru* " release " = Heb. *dᵉrôr* " release; copious flow " and the Arab. *darra* " flowed copiously, streamed " derived from this word as indicating uninhibited movement ?

[7] Kohler *Kl. L.* 35–9 and Gaster in " JRAS." LXV [1938] 54–5; cp. Gr. ψιθυρίζειν and Lat. *zinzilulare* " to twitter ", especially of birds.

[8] Reading *sîs* (K.) rather than *sûs* (Q., M.T.); cp. Theod.'s σις (Field).

[9] Bodenheimer *Tierwelt Palästinas* I 29.

[10] Tristram " FFP." 82–4.

once again, when Hezekiah is made to say " like a swift (or) an *'āgûr* do I twitter " (Is. xxxviii, 14). The objection has here been made that, while *ṣipṣēp* " twittered " is suited to the cry of the swift, it is inapplicable to that of the crane as *'āgûr* is now usually translated (Sa'ad.)[1]. Other identifications proposed are the following: (i) stork (Vulg.)[2], which is practically silent except for much clattering made by the snapping of the mandibles together during the breeding season; (ii) nightingale[3], a migrant whose melodious song cannot be described as twittering; (iii) the yellow-vented bulbul[4] which, though suggested by its Arabic name, is excluded by its flute-like song and as a permanent resident in Palestine[5]; (iv) wryneck[6] (cp. Arab. *'ajara* " bent " the neck), which haunts old orchards where it sits on decaying or decayed tree-trunks and emits a sharp whistling cry.[7] This bird is almost certainly that which is meant; for it alone has a more or less appropriate note and is at the same time a migrant to Palestine[8].

The *śᵉlāw*, which has similar Syriac and Aramaic names, is beyond doubt not the sand-grouse but the quail (LXX, Vulg., Targ., Pesh.)[9], although the origin of the name is obscure[10]; for these alone, returning to Palestine by myriads in a single night, satisfy the conditions of the Biblical story (Exod. xvi 13, Num. xi 31, 32 Ps. cv 40)[11]. The *qôrē'* is equally certainly the partridge (Aq., Symm., Theod., Vulg., Pesh., at I Sam. xxvi 20; LXX, Vulg., Pesh., at Jer. xvii 11); this, like its other name of " chukore ", represents the common or grey partridge's cry of " girrah " or the Greek partridge's "cok-cok-cokrr"[12]; possibly *qārâ* " called " has a similar onomatopœic origin. In the O.T. the partridge is mentioned twice[13], once when Saul's pursuit of David at En-gedi by the Dead Sea is compared to hunting a partridge in the mountains (I Sam xxvi 20), and secondly where the prophet speaks of it as gathering[14]

[1] Hardly " swallow " (Targ. and Pesh. at Jer. viii 7, (since this is otherwise named (s. p. 131).

[2] Volz on Jeremiah viii 7.

[3] Veltbusen *ap.* Dathe *Proph. Maj.*² 132.

[4] Köhler *Kl.L.* 35–9.

[5] Meinertzhagen " NBE." 186–7 and Tristram " FFP." 57; Arab. *ta'jarîyu(n)* (Köhler).

[6] Christian in *OLz.* XXII 208³.

[7] Butler " BB." III 18, 20 and Meinertzhagen " NBE." 341.

[8] Tristram " FFP." 86.

[9] The LXX'S ὀρτυγομήτρα " corncrake, landrail" (L. & S.) is here the ὄρτυξ ὑπερμεγέθης (Hesychius); their νυκτικόραξ once (I Sam. xxvi 20) is due to the -κορ- recalling the Hebrew word.

[10] The Heb. *śᵉlāw* has no connection with the Heb. *šālēw* " was at rest " Arab. *salâ* I " was contented, lazy " VIII " grew fat ", since the equation violates the phonetic law governing sibilant mutation. The quail is said to emit a " very liquid " sound (Meinertzhagen " NBE." 650); the presence of the liquid sound of *l* in every form of its name therefore is significant. The Syr.-Arab. *furrî* " quail " is said to represent the sound of its whirring wings.

[11] Tristram " FFP." 124.

[12] Thompson " GGB." 235–6; cp. Meinertzhagen " NBE." 643–5.

[13] Elsewhere only in names of places (Jud. xv 19) and perhaps also of persons (I Chron. ix 19 xxvi 1, II Chron. xxxi 4).

[14] Heb. *dāgar* " heaped up " (LXX, Targ., Pesh.), rather than " hatched " (Vulg.); cp. Is. xxxiv 15.

young which it has not brought forth (Jer. xvii 11). The first reference may be either to the chukor-partridge (*caccabis chukar*) which is plentiful as a game-bird not only in the mountains of the Syrian wilderness but also everywhere from the Lebanon to southern Judah except in the low-lying plains and the Jordan valley or, if the actual locality is pressed, to the sand-partridge (*caccabis sinaica*) which is confined to the rocky regions of the Dead Sea and Sinai[1]. In either case the comparison is apt; for the partridge, and especially the latter, runs a considerable distance before rising on the wing and indeed is often taken by being run to exhaustion[2]. The second passage alludes to a curious belief, recorded also by the Arabic historian alDamîr, that the mother partridge visits a neighbour's nest and taking the eggs incubates them, but that the chicks, when they come to fly, return to the mothers who have laid them[3]. The story may have arisen from the fact that the chukor lays two clutches of eggs, one for herself and another for the cock[4].

The last of the birds that are eaten are the fatted *barbūrîm* supplied to Solomon's table (I Ki. v 3). Ancient and modern translators have been at sea in regard to it; for though the name is clearly onomatopœic, it gives no clear hint of the bird's identity. Thus they have been variously identified as capons (*Qimhi*), geese (Gesenius after Targ. Jer.) or swans (Ewald) as having pure, *i.e.* white, feathers[5], or guinea-hens (Thenius) or fowls (Tristram)[6]. The latest suggestion is that the Heb. *barbūr* denotes the same bird as the Arab. *'abû burbur* "cuckoo"[7], which the Romans ate stuffed[8]. This explanation is indeed possible; for "the chuckle of the female resembles bubbling water with guttural intonation"[9]. At the same time one cannot help feeling some doubt regarding a constant supply of cuckoos. May not the name then denote generally young birds and perhaps especially chickens, like the Arab. *birbir* "young chickens" (Spiro), whose chirruping is thus repetitively reproduced[10]? Domestic fowl are of Indian origin, but the date

[1] Post in Hastings "DB." III 682 and Tristram, "FFP." 123–4.

[2] Otherwise, it is said to have been taken by aid of a decoy-bird (Jb. Sir. xi 30), as the red-legged partridge is still taken by Arabs.

[3] Bochart & Rosenmüller *Hierozoicon* II 85.

[4] The Arab. *ya'qûbu(n)*, the name of a partridge found in Nejd and Tihamah, suggests that "Jacob" may in origin have been one of the many personal names denoting wild creatures.

[5] As from the Heb. *bārar* "purified; selected", whence the LXX's ὀρνῖθες ἐκλεκτοί; but the explanation is philologically absurd.

[6] As though of barbarian or foreign origin (s. Tristram "NHB." 220–1).

[7] Lat. *centropus ægyptius;* but this is a purely Egyptian bird (s. Meinertzhagen "NBE." 342–3).

[8] Köhler in *Neue Zürchner Zeitung* 14–7–1936, 1218, citing Pliny's *Nat. Hist.* X ix 27.

[9] *Sc.* the common cuckoo or *cuculus canorus* (s. Meinertzhagen "NBE" 343–4). The commonest cuckoo in Palestine is the *oxylophus glandarius* or great spotted cuckoo (Tristram "NHB."[2] 210). The Gr. βορβορώδης "turbid," applied to the sea and so on, has a similar onomatopœic origin.

[10] So the Gr. βάρβαρος is applied to birds (L. & S.).

of their reaching Palestine is not known. The cock appears early in Greek literature, *e.g.* in Homer's Odyssey[1] and in Pindar[2]; and Aristophanes calls it the Persian bird[3], obviously because it was imported through or from Iran. It is also said to be figured on a Babylonian seal of the time of Nabû-na'îd (555–538 B.C.)[4] Both it and the hen are mentioned in the N.T.[5]; and the Mishnah forbids Jews to keep domestic fowls for fear of defiling sacred objects, but Rabbinic sources show that they were very commonly kept by Jews as by Romans. Chickens may therefore have made their appearance in Palestine early enough to be served as a delicacy at Solomon's table or at any rate to have found a mention in the Book of Kings[6].

Several birds occur in descriptions of waste or ruined places which they are said to haunt as symbols of desolation. Three passages come into the discussion:

(i) that in which Babylon is condemned to become a place
" where marmots(?)[7] shall crouch
and their[8] houses are full of hyænas,"[9]

[1] In iv 10 (where Ἀλέκτωρ is a man's name); cp. *Batrachomachia* 192.

[2] In *Olymp.* xii 14.

[3] In " Birds " 483–5.

[4] Cheyne in *EB.* I 855[2].

[5] The cock is introduced by the LXX once into the O.T., where the meaning of the Heb. word is quite unknown (Prov. xxiv 66 = xxx 31).

[6] Cp. Post in Hastings " DB." I 452. The *tukkîy* (I Ki. x 22 II Chron. ix 21) has been identified with the Malab. *togai* " peacock " but seems rather to be the Eg. *ky* " ape " with the feminine article prefixed, since the accompanying *qôp* is certainly the Eg. *gf* " monkey " (Albright " Archaeology and the Religion of Israel " 212[16]).

[7] The Heb. *ṣî* is not the same word as the Arab. *ḍaiwanu(n)* " wild cat " (Bochart); for the equation is philologically unsound. The word may be onomatopœic and be connected with the Arab. *ṣawâ* " yelped " and the cognate *ḍawḍā* " cried out " (Dozy, Lane) and so denote the marmot which, if alarmed, utters a loud shrill whistling sound; the pouched rat, marmot or squirrel (Lat. *spermophilus xanthoprymnus*), is exceedingly abundant in the stony plains of the uplands of Gilead and Moab, burrowing generally in the neighbourhood of ruins (Tristram " FFP." 15). The marmot is said by Jerome, who wrongly identifies the שׁפן with it, *animal esse non majus hericio, habens similitudinem muris et ursi, unde in Palæstina* ἀρκτομῦς *dicitur;* and he adds *magna est in istis regionibus hujus generis abundantia, semperque in cavernis petrarum et terrae foveis habitare consueverunt* (Migne *PL.* XXII 861–2).

[8] *Sc.* of the inhabitants of Babylon.

[9] Heb. *'ōaḥ* " laughing hyæna " (cp. Arab. *'aḥḥa* " coughed "); hardly " owl " (Gesenius-Buhl). An Acc. *aḫu* " hyæna " or " jackal " (Haughton *ap.* Hommel *Saügetiere* 307–8) does not exist; the supposed word is *aḫû* " other, strange, unfriendly ", by which the planet Mars is occasionally described. The epithets reflecting the supposed hostile influence of this planet are *limnu* " evil ", *sarru* " rebellious, *nakaru* " hostile ", *aḫû* " other " in the sense of " unfriendly ", and *šanû(m)* " second, other " in the same sense (Gössmann *Plan. Bab.* 180). The abstract *aḫîtu(m)* " hostility " shews the same development of meaning, as for example *aḫâta iṣbutu* " they took unfriendly measures, undertook hostilities " (Budge & King " AKA." I 303 ii 24; Ebeling *Bab. Fab.* 48 iv 12; Kraus *Ab. B.* II 18). That *aḫû* is glossed *barbaru* " wolf " is only an attempt to explain it as a term intended to show that Mars is an unfriendly star; it does not mean that *aḫû* is a name for any specific wild beast (s. Landsberger *Fauna* 78 (3)). The *'ōaḥ* cannot be the marten (Ewald), since this hardly occurs in Palestine (Tristram " FFP." 22).

" where eagle-owls[1] shall dwell
and *śe'îrîm* shall dance,
" where jackals[2] shall inhabit their[3] towered houses
and wolves[4] the pleasant palaces "

(Is. xiii, 21–22);

(ii) that in which Edom is said to be laid waste

" and scops-owls[5] and ruffed bustard(?) shall possess it
" and screech-owl[6] and raven shall dwell in it

. . . . . .

" and it shall become the haunt of wolves
" and a resort of eagle-owls,
" and marmots(?) shall meet jackals,
" and the *śā'îr* shall call to its partner;
" yea, *lîlîṯ* shall settle there
" and find no resting place for herself.
" There shall the sand-partridge make her nest and lay
" and hatch and collect (her young) in her shadow[7];
" there too black kites[8] shall be gathered,
" each with its mate "

(Is. xxxiv, 11–15);

(iii) that in which Nineveh is similarly doomed to desolation, when

" both scops-owl[8] and ruffed bustard(?) shall lodge in her,
" . . . . . .in the window(s), the bustard on the threshold(s) "

(Zeph. 11, 14).

There are no adequate reasons, in spite of certain renderings in the ancient Vss. in the case of two of the following creatures, for taking *'ōaḥ* " hyæna " as the Palestinian eagle-owl,[9] nor *'îy* " jackal " as some other kind of owl (Vulg. at Is. xiii, 22, *ulula*), nor *tan* " wolf " as the desert eagle-owl[10] (Targ. and Pesh., *yārôrâ*). There is too no evidence for interpreting *śā'îr* " hairy one "=" satyr " and *lîlîṯ* " female storm-demon " as respectively scops-owl

[1] S. pp. 12–13

[2] Arab. class. *ibn' âwā* and vulg. *wâwîy* from *'awā* I ' betook oneself " V " flocked together " (Lane). Jackals regularly hunt in packs (Tristram " NHB."[2] 87–8; cp. " F.F.P." 21).

[3] S.p. 134 n8

[4] Arab. *tînânu(n)* " wolf " (Post *ap.* B.-D.-B.).

[5] S.p. 15

[6] S.p. 16

[7] Hardly an error for *bêṣeāh* " her eggs " (Duhm), unless the two preceding verbs are interchanged (Gunkel), since they are already hatched.

[8] S.p. 10

[9] Lat. *bubo bubo aharonii;* cp. Germ. *Uhu* and *Schuhu* '(great horned) owl' (G.–B.; s. Aharoni in *Osiris* V 469).

[10] Lat. *bubo bubo desertorum* or *ascalaphus* or *interpositus* (Aharoni *ibid.* 469-70); s. *RÉS* v 39.

and tawny-owl[1]. The *śᵉʿîrîm* dance, which owls do not do, and the apparent sacrifice to them (II Ki. xxiii, 8=II Chron. xi, 15) can hardly have been offered to these or indeed to any natural birds; and the inability of *lîlîṯ* to find a home in the ruins contradicts the known habits of the owl. Contrariwise dancing, here attributed to the *śᵉʿîrîm*, is characteristic of satyrs as described by ancient authors[2], and the homelessness of *lîlîṯ* strongly suggests the eerie whistling of the storm-wind in gusts in and out of ruined houses and deserted palaces[3]. There is no need to force the doctrine of *eiusdem generis* in the strictest sense; the context only requires a number of creatures, real or imaginary, suitable for haunting ruins. The *qippōz* can hardly be the hedgehog or porcupine (LXX, Vulg.), since this creature cannot be said to leap (cp. Aram. *qᵉp̄az*=Arab. *qafaza* " leapt, sprang "). It has also been explained as denoting the same as the Arab. *quffâzu*(*n*) " arrow-snake " (Bochart). That this word is known only as a medieval term is not necessarily fatal, since apparently late terms may and indeed often are really old terms which have not survived in extant literature; but the objection, that the arrow-snake or *eryx jaculus* (Tristram) does not incubate, puts it out of court[4]. The only snake that does so is the python, and this is not known ever to have existed in Palestine. Some kind of bird must therefore be accepted, but there is nothing to show that this is some kind of owl (Targ., Pesh.)[5], of which there seem already to be enough; and the owl is not particularly remarkable as a hopping bird. May the *qippōz* be the sand-partridge[6], a bird with a brown to bluish-grey body, white ear-coverts and flanks heavily splashed with pearl-white markings? It lives in small parties in dry and unattractive places, being resident in the valley of the Jordan and the depression of the Dead Sea. It rests during the heat of the day under the shadow of a boulder and, when disturbed, runs with great speed; and it hops with the greatest agility from rock to rock in the most broken and boulder-strewn country[7].

[1] Aharoni in *Osiris* v 469-71; cp. Vaccari in *Stud. Anselm.*, [1951] 259-63.

[2] Cp. Gr. φάσματα τράγων (Iamblichus).

[3] The *lîlîy* and *lîlîṯâ* of certain Aramaic magical texts, too, can hardly have been real birds.

[4] Shipley in *EB.* IV 4393.

[5] Whether the little owl (Torrey " Second Isaiah " 293–4 and in " AJSL." XXXIII 62–3) or the short-eared owl (Aharoni in *Osiris* V 469–70 and *Leshonenu* VI 137–63); cp. Post in " DB." III 637.

[6] Lat. *ammoperdrix heyi heyi.*

[7] Tristram " FFP." 123–4 and Meinertzhagen " BE." II 646. The roots from which the Heb. *qippōz.* " sand-partridge " and the Arab. *ḥajal* " chukor-partridge " are derived show a curiously parallel semantic development: these are the Arab. *ḥajala* " walked with shackled legs, went with short steps; hopped, leapt " and *ḥajjala* " shackled (a man), put anklets (on a woman); (a horse) had white legs in the lower part; (a woman) dyed (her fingers)", whence *ḥajlu*(*n*) " shackle, anklet " and *ḥajalu*(*n*) " partridge," especially a dusty-coloured partridge with white markings from Tihâmah in Arabia; and the Arab. *qafaza* " sprang, jumped, bounded; leapt and alighted with the feet together; (a horse) had white forelegs " and *taqaffaza* " (a woman) had dyed hands ", whence *qaffâzu*(*n*) " gazelle bounding very much " *qâfizu*(*n*) " swift horses springing as they run " and *qawâfizu* " frogs " (Lane). The Heb. *qippōz* " sand-partridge ", whether it is so called from its gait or from its colour, fits easily into this scheme.

The *qippōḏ* and the *ḥōreb*(?) remain. The former can hardly be the hedgehog or porcupine (LXX, Vulg.), since this cannot be lodged in " chapiters," *i.e.* tops of pillars or columns, even though they lie fallen on the ground; it may be another bird, and owl (Rashi) or bittern (Hitzig) have been suggested. The √*QPD* means something like being rolled or bunched up, thick and stiff (cp. Heb. *qāpaḏ* " clenched " and *qippaḏ* " rolled up", Syr. *'etqpaḏ* " was bunched up, bristled, wrinkled," Arab. *qafada* " wound thickly round," and *qafida* " had a big, flaccid neck "), which would well suit not only the hedgehog but also any kind of owl but hardly the bittern (Hitzig). There are, however, already so many names for owls that another suggestion may be made, that the bustard is meant; for " the neck, especially of the male in the breeding season, is thick[1]". The *ḥōreb* is apparently vocalized as meaning " drought " (cp. Targ.'s *ḥărôbû* " they are dried up, waste ")[2]; ought it not rather to be read as a Heb. *ḥaraḇ*, Arab. *ḥarbu*(*n*) " male bustard? "[3] The bustard is a shy bird which is found almost always on waste ground, open plains or the desert edge, and is rapidly receding wherever the population advances. Further, three varieties occur in Palestine, the the great and little bustards on the plains and the ruffed bustard, rarely coming near a human dwelling place, which is a shy bird frequenting the wild desert and a permanent resident in the plains of the Jordan valley and at the southern end of the Dead Sea[4]. The conclusion may then be hazarded that the *ḥaraḇ*[5] is the great and/or little bustard and that the *qippōḏ* is the ruffed bustard; both admirably suit the present context.

Clearly " *qôl yᵉšôrēr* in the window(s) " conceals the name of another bird haunting ruins and a verb describing its activities, parallel to " the bustard on the threshold(s)," but what it may have been is unknown; the text is perhaps corrupt beyond hope of recovery.

The *yᵉʿēnîm* " ostriches " (LXX, Symm., Vulg.; cp. Targ., Pesh.) are apparently so called as being the greediest of birds (Syr. *yaʿîn* " greedy ") from their habit of swallowing anything and everything in the least degree edible, a habit engendered by their hard life in the sterile desert. They are mentioned *eo nomine* only once in the O.T., as a symbol of maternal cruelty (Lam. iv 3); but, though the ostrich after laying her eggs on the bare sand goes off in search of food, so soon as ten or a dozen are laid, the greatest possible care is otherwise taken of them. In spite of this care, however,

[1] Newton " DB." 63–4.

[2] The alteration of this word to *'ôrēḇ* " raven " (Ewald with LXX and Vulg.) is needless; the Pesh., as also the Targ., support the M.T.'s consonants.

[3] Also Acc. *ḫarbu*, an unidentified bird.

[4] Tristram " FFP." 127 and Bree " BE." IV 7–8.

[5] There is no need to disclaim *qippōḏ* " porcupine " (LXX, Vulg.); the Vss. prove beyond doubt that the same name belongs to both bustard and porcupine, even though this last is not meant in the passages under discussion or indeed anywhere in the O.T. The use of the same word for totally different creatures is illustrated by *tinšemeṯ* " little owl " and " gecko " (s. p. 15).

such a habit may well have been misunderstood and become the source of a story that the female ostrich deserts her eggs and goes off to perform the duty of a male bird, that of bringing food to the sitting bird. The Heb. *rᵉnānîm* " cries of joy " is another name for the " ostrich " (Vulg.), probably the female ostrich, like the Arab. *naʿâmu(n)* " ostriches; desert " and *naʿâmatu(n)* " joy; ostrich," given to it perhaps on the principle of *lucus a non lucendo* as reflecting its hard desert life or perhaps directly in consequence of its carefree exultation in its speed[1], which is described in the only passage in which the word occurs (Jb. xxxix 13–18). The text here is difficult but, as emended here and there, may be translated:

" is the wing of the hen-ostrich atrophied[2]
" or are pinion and feather lacking[3],
" that she leaves her eggs on the earth
" and they are warmed[4] on the soil;
" and has she forgotten that a foot may crush them
" and the creature of the plain tread on them,
" treating her chicks harshly[5] as though not hers[6],
" without fear that her labour will be vain?
" For God has deprived her of wisdom
" and has not allotted any understanding to her,
" what time[7] she proudly(?)[8] plays the male[9]
" and mocks at the horse and his rider."

The picture is that of the hen-ostrich, unable with her atrophied wings and deficient plumage to give proper care to her young (however untrue to life it may be) and so brainless as to go speeding across the desert like a male bird when she ought to be caring for her eggs or her chicks.

There remains the phœnix, a long-lived bird of Egyptian mythology, which has been imported into Job's plaint, where he exclaims

" then I said: ' I shall die with my nest
and I shall multiply my days as the sand.' "

(Job xxix, 18), where Jewish exegetes have altered *ḥôl* " sand " into *ḥûl* " phœnix," a word apparently invented by themselves.[10] The rendering

[1] The alteration of *rᵉnānîm* into *yeʿēnîm* (Hoffman) is not only needless but raises grammatical difficulties.

[2] Namely *nisʿālāh* from a Heb. *sāʿal*= Arab. *saʿila* " was mean, paltry, little ".

[3] Namely *ḥăsērāh* (Hoffman).

[4] Namely *tᵉḥummam* (s. Kautzsch-Cowley " Heb. Gr." §145k); for *bêṣîm* is feminine (Is. x 14).

[5] Namely *haqšēaḥ* (Gray) or perhaps *taqšîaḥ* (Heb. Mss.).

[6] Namely *kᵉlō'-lāh* (Vulg.).

[7] Namely *kᵉʿēṯ* (Merx; cp. I Sam. iv 20 Jb. vi 17).

[8] Cp. Ps. lvi 3(?) and lxxiii 8(?).

[9] Cp. Arab. *maru'a* I " was manly " II " affected manliness; delighted " in a thing (Lane).

[10] B. Talm. *Sanh.* XI iii 108b. The Ugar. *ḥl* " hawk " or the like alone gives colour to the suggestion that some bird is meant.

" like sand " (Targ., Pesh.) may be accepted as it makes excellent sense, even though years or days are not compared to sand for number elsewhere in the O.T.; this may be the cause of the Rabbis' curious interpretation of the word here. The rendering too of *'im qinnî* " with my nest " has been disputed and it has been variously explained as " in my nest " (R.V.), *i.e.*, at home and " with my nest " *i.e.*, surrounded by his nestlings (S. R. Driver). Neither explanation makes sense: Job is saying that, having done many good deeds, he will deserve to enjoy a long life; but he will surely not have lived long if he dies while his children are too young to have gone out into the world. Further, a *hysteron proteron* is involved; for Job is made in effect to say that he will die at home and then enjoy a long life! The meaning of the M.T.'s *'im qinnî*, which is confirmed in one way or another by all the Vss., is concealed in the Targ.'s " in my strength in my nest," which translates the phrase twice, once after the Heb. *qēn* " nest ", once after the Eg. *qn* " strong " and *qn.t* " strength " (Herz); what Job then says is " I shall die with my strength (unimpaired) and enjoy days as many in number as (grains of) sand (by the sea)[1]". This *qēn*, however, is a genuine Hebrew word, which has survived in literature only here, where the Targum alone has recognised it. It is indeed the same word as *qēn* " nest "; for the √*QNN* denotes coiling or twisting or the like, so that the Acc. *qannu* " cord, rope " = Arab. *qinnatu(n)* " strand of rope " and Acc. *qinnu* = Heb. *qēn* " nest " as made of twisted or woven twigs and also Eg. *qn* = Heb. *qēn* " strength " may all be derived from it, and what is twisted and taut or tight is strong.[2]

In conclusion, one other misunderstood passage in the O.T. may be examined. This is העיט צבוע נחלתי לי העיט סביב עליה " is mine heritage unto me as a speckled bird of prey? are the birds of prey round about it? " (Jer. xii, 9; R.V.); as thus translated, the passage barely makes sense. The idea, too, that birds attack any other bird of unusual plumage, which is usually cited in illustration of this translation, however true it is, hardly accords with the context; and indeed the passages from ancient writers cited to support it relate stories of mythical or semi-mythical birds[3], while the mobbing of an owl by a party of small birds is hardly apposite[4]. The LXX's σπήλαιον ὑαίνης for עיט צבוע gives the true interpretation of this passage. For σπήλαιον shows that the first עיט is a totally different word from the second עיט, so that there is a play on the juxtaposition of these two homonyms[5]; this comes from the same root as the Arab. *ġâṭa(y)* " entered and hid oneself in a place," from which *ġâṭu(n)* " broad, low-lying land " and *ġâyiṭu(n)* " low place where one can hide oneself " are derived (Freytag). Then their ὑαινα shows that צָבוּעַ must

[1] So Pesh. " like the sand of the seas ".

[2] So Acc. *qû* = Heb. *qāw* " cord " and Arab. *qawiya* " was strong ", Heb. *ḥîl* " to twist and writhe " and *ḥayil* " strength ", Acc. *gidlu* " string (of onions) " = Arab. *jadîlu(n)* " twisted rope " and Heb. *gādôl* " (strong,) great " exemplify this semantic development.

[3] Tacitus *Ann.* vi 28 (*phœnix*) and Suetonius *Julius Divus* 81 (*regaliolus*).

[4] Pliny " NH." X xix 39.

[5] Driver in *Vet. Test. IV* 240–5.

be read צָבוֹעַ,[1] which is found again as a common noun[2] and also as a place-name[3]; it is the Arab. *ḍabu'u(n)* "hyæna".[4] In fact, the *hyæna striata* is very common in Palestine, living in caves and tombs and even digging up freshly buried corpses to feed on them[5], so that its haunts are naturally watched by birds of prey. The land of Palestine, God's own possession, which, having taken up an attitude of hostility to Him, has been abandoned by Him and become as the hyæna's lair foul with the carcases of its victims, is hungrily watched by birds of prey hovering around it.

ONOMATOPŒIC NAMES

Hebrew or Arabic name	*Note*	*English name*
(i) Based directly on imitation:		
'ayyāh, *yu'ya'u(n)*	"piiu-piiu" or "chiu-chiu"	falcon
'ôrēḇ, *ġurâbu(n)*	"pruck-pruck" (reversed)	raven, crow
kôs	"cho-cho-cho"	tawny owl
qā'āṯ from *qî'*	"kiu-kiu-kiu"	scops-owl
dûḵîp̄aṯ	"hoop-hoop-hoop"	hoopoe
tōr	"turr-turr-turr"	turtle-dove
sîs	"si-si-si"	swift
qôrē'	"cok-cok-cokrr"	chukor-partridge
ṣippōr	"chivi-chivi"	sparrow
deḏrôr	"tit-tit-tit-tit"	swallow
(ii) Based on repetition:		
barbūr	"chick-chick" or "cuck-cuck"	chicken or cuckoo
(iii) Based on verbal root:		
'ayiṭ	screaming	bird of prey
ġôzāl, *jauzalu(n)*	cp. Fr. *gazouiller* "*to chirp*"	young bird
yônāh	moaning (formed with sonant *n*)	pigeon
yᵉmîmāh, *yamâmatu(n)*	moaning (formed with sonant *m*)	dove
yanšûp̄, *tinšemeṯ*	panting or snoring	screech-owl / little owl
śelāw	based on "very liquid sound"	quail
nešer	flashing or rushing	eagle, vulture

[1] Ehrlich *Randglossen* IV 276.
[2] J.b. Sir. xiii 17.
[3] I Sam. xiii 8 (צְבֹעִים).
[4] Bodenheimer *ap.* Köhler *Lexicon* 791.
[5] Tristram "NHB.".[2] 107–9.

THE EARLIEST BIBLICAL ALLUSION TO COINED MONEY ?*

By Raphael Loewe

Although the first Greek coins were struck before the close of the 7th century B.C.E.,[1] it is a commonplace of biblical archæology that the monetary system in Palestine before the Babylonian Captivity was based upon unminted silver. The two main monetary terms of biblical Hebrew indicate this: (i) *keseph* = *money*, properly *silver*, is referred by the *lexica*[2] to a √*ksp* said to = *be pallid*, a derivation which may be supported by the comparison of such mediæval coinage terms as *albus*, *blanc*, *weisspfennig*, *witten*. Since, however, in Arabic *kasafa* as well as meaning *be colourless*, *eclipsed*, also expresses *cut up*, *cut off*,[3] it may be that the ideas associated in Hebrew with √*ksp* that express *pallor* and emotions which induce it are in fact denominative metaphors from silver; and that *keseph* itself, derived from √*ksp* = *cut off*, drew its name from the manner of payment where uncoined metal was the medium of exchange. Such a derivation would, presumably, compel us to regard *keseph* as a loan-word in Hebrew[4]—no very serious objection seeing that silver does not occur naturally in Palestine or Syria.[5] A close parallel to such an etymology would be furnished by the Arabic *fiḍḍat*^{un} = *silver*,

*I am glad to acknowledge the friendly bibliographical help of Mr. G. K. Jenkins of the Coin Room in the British Museum, and also of Prof. D. Winton Thomas and Mr. P. Grierson in Cambridge.

[1] B. V. Head, *Coins of the Ancients*,[3] p. 1f. The earliest known coin is from Lydia (p. 4, and Plate I, Fig. 1). For the dating, the latest and most authoritative study of the emergence of coinage is by E. S. G. Robinson (*The Coins from the Ephesian Artemision Reconsidered*, in the Journal of Hellenic Studies, lxxi (1951), p. 156f). Robinson (p. 165) brings down the date of the earliest coinage (p. 165), probably from a mint at Sardis (p. 163), to the generation preceding *c.*600. See especially p. 165 *foot, et seq.*

[2] *Oxford Hebrew Lexicon* (henceforth BDB), Gesenius-Buhl, *Hebräisches Handwörterbuch*[17] (henceforth Ges-Buhl), L. Koehler, *Lexicon in Veteris Testamenti Libros*. P. Haupt rejected this explanation (*Gold and Silver in Hebrew*, in the Journal of the American Oriental Society, 43 (1923), p. 116f, 125f), and claimed that the original meaning of *keseph* in Hebrew and cognate languages is *fusible;* comparing Assyrian *ṣarpu* = *silver* and *ṣarâpu* = *smelt*, and connecting *keseph* with Arabic *sakaba* or *sabaka* = *pour* (= Heb. √*šfk*, Assyrian *šapâku*).

[3] See Hava's *Arabic Dictionary* (√ = Hebrew *kesheph* [herbs *shredded* into a magic brew] > *sorcery* (so BDB)). According to Ges-Buhl, this √ and √*kasafa* = *be colourless*, *eclipsed* are distinct in Arabic.

[4] Arabic *ksf* ought in Hebrew and Aramaic be *kšp/kšf;* for Heb. *kesheph* see previous note. Syriac *'ethkasshaf* = *pray* (originally perhaps *cut oneself* in devotional ceremonial).

[5] Cheyne in *Encylopædia Biblica*, *s.v.* (iv, 4524).

from √فقص = *break in pieces* (although in each case the reference might be to the *crushing* of the ore prior to smelting rather than to the *breaking off* pieces of manufactured silver for payment). (ii) *shākal* = *weigh* (originally *lift*),[1] whence *shekel*, *mishḳāl* (*weight*), and Aramaic *t*ḳēl*, *mithkāl*, > *pay* [*out*] (*e.g.*, Gen. 23, 16). A more advanced stage, at which the still uncoined metal is trimmed into ingots, may be reflected in the use of the term *lāshōn* (*tongue*) of gold[2] weighing 50 shekels alongside 200 shekels silver. It is not, however, till the Persian period that coined money becomes known in Palestine, and the earliest known Hebrew coin, from Hebron, is assigned by Reifenberg[3] to the middle of the 5th century and tentatively to Nehemiah. In the post-exilic portions of the Hebrew Bible there are mentioned the *'adarkōn*[4] of gold, *i.e.*, the daric, and the *dark*mōn*,[5] likewise of gold, *i.e.*, δραχμῶν, the compiler of Chronicles, etc., being apparently confused between daric and drachma ;[6] these being the first explicit references to coined money. Beyond this, there is what looks like a clear allusion in the symbolism of Daniel 7, 7f, where the horns that represent rulers of the Seleucid dynasty down to Antiochus Epiphanes seem to have been suggested, as Israel Abrahams pointed out,[7] by the head of Alexander with the ram's horn of Ammon minted by Lysimachus of Thrace, and the frequency with which horned types occur on the coins of the Seleucids.[8] Abrahams also suggested[9] that the comparison in Song of Songs 1, 9, of the beloved to a *company of horses in Pharaoh's chariot* has been inspired by the chariot teams of the Syracusan coin-types—an ingenious suggestion which, although a parallel from Theocritus is claimed,[10] cannot be regarded as more than plausible.

It is the object of the present note to show that we have in a reliably dated

[1] The √ is regarded by Ges-Buhl as a Babylonianism. √*šḳl* properly starts as = *lift* (√*ḳl* [in Hebrew = *be light*] is identical with Sumerian *gal*, *našu* = *lift;* + prefixed causative *š*, > √*šḳl:* See C. J. Ball, *Semitic and Sumerian*, in the Hilprecht Anniversary Volume (1909), p. 56. More briefly also P. Haupt, *Babylonian Elements in the Levitic Ritual*, Journal of Biblical Literature, xix (1900), p. 78, n. 107). The semantic process is therefore *lift* or *make light*, > *lift into balance* or *poise* (in hand), > *weigh*, > *pay* [*out*].

[2] Joshua 7, 21.

[3] *Ancient Jewish Coins*,[2] p. 5f, Plate I, Fig. 1a (= Palestine Exploration Fund Quarterly Statement, Oct. 1934, p. 100f).

[4] 1 Chron. 29, 7; Ezra 8, 27.

[5] Ezra 2, 69; Nehemiah 7, 70–2.

[6] Nöldeke, Zeitschrift für Alttestamentliche Wissenschaft, 20, p. 148, followed by Ges-Buhl.

[7] *Campaigns in Palestine from Alexander the Great* (Schweich Lectures of the British Academy, 1922), p. 21f.

[8] Alexander's head, see B. V. Head, *op. cit.* plate 28, No. 19, and p. 58. Seleucus I *ibid.*, No. 14, and p. 57. Seleucid types include also a horned horse's head, a horned helmet, and a tusked elephant; see Abrahams, *loc. cit.*, and also Head, *Historia Numorum*[2], p. 756.

[9] *Op. cit.*, p. 22.

[10] xviii (Epithalamion of Helen), l. 30–1 (ἅρματι Θεσσαλὸς ἵππος, ὧδε . . . . . Ἑλένα Λακεδάιμονι κόσμος). The parallel was noted (with others) by H. Graetz (*Schir Ha-Schirim*, pp. 71, 132), but Abrahams suggested connecting the *motif* with the coin-type.

Old Testament text an allusion to coined money substantially earlier than the mid-5th century date to which Reifenberg assigns the half shekel (*beḳa*ʿ) from Hebron; once recognised, the allusion can be supported by what is known of the history of the monetary system in the 5th Persian Satrapy of " Beyond the River " (*ʿᵃbar nahᵃrā*), and in turn confirms it. The discovery within the last twenty years of two important coinhoards has provided the basis upon which the story of the change-over in Syria from the use of unminted metal to a coinage system may be reconstructed.[1] In Syria, as in Egypt, the transition is illustrated by the occurrence of three types of hoard: (i) unminted silver only, (ii) unminted or crudely shaped metal mixed with early Greek coins, and (iii) coins only. The chisel-markings on coins indicate the suspicion with which they were at first received by the local population, such suspicion being dissipated only by the good quality of the silver issued by the mints of Athens and Thraco-Macedonia, combined with the greater convenience of a coined currency. Indeed, these coinages may first have become familiar in Syria as imported metal, rather than as a medium of exchange; and for currency purposes they were, at first, weighed out in exactly the same way as was unminted silver. The stamping of Attic tetradrachms and Persian shekels with a moneychanger's countermark—a device probably invented on the coast of Phœnicia and Syria[2]—was a legacy of the old suspicion; such coins, one specimen of which was obtained from Jerusalem,[3] were acceptable as being guaranteed personally by the moneychanger who thus relieved the recipient of the necessity of satisfying himself, by individual investigation, of their weight in metal. The events of the 5th century B.C.E. favoured the preponderance of Athenian currency and the Attic owls eventually achieved a dominating position in the eastern Mediterranean, an ascendancy which they were to maintain until displaced by the coins of Rhodes and subsequently of Alexander. The emancipation of Attic coinage on the Syrian seaboard from the status of bullion is attested by its local imitations—such copies constituting the earliest products of the Syrian mints, with the possible exception of a Sidonian 2-shekel piece and the earliest Tyrian issues, if in fact these are as early as the 5th century.[4] Yet the occurrence amongst them of genuine Attic specimens still being tested by the chisel indicates that uncoined metal is still considered to have

[1] See W. Schwabacher's valuable article, *Geldumlauf und Münzprägung in Syrien in* 6. *und* 5 *Jahrh. v. Chr.*, in Opuscula Archæologica vi (1950, Lund), p. 139f.

[2] So Schwabacher; but see Robinson, art. cited in Note 1 (1951), p. 163.

[3] An Attic tetradrachm countermarked with an apparently Tyrian stamp (Melḳarth on a seahorse). From C. Reinecke, Jerusalem, 1883. See L. Forrer, *The Weber Collection* II (1924), No. 3450, Plate 129; Schwabacher, p. 147, describes the countermark. We may also mention here an early 5th century coin of Aegæ (B.M.C., *Macedon*, p. 38, No. 4), found at 'Atlit together with 4th century Sidonian and Tyrian specimens: see C. Lambert, Quarterly of the Department of Antiquities in Palestine, ii (1932), p. 2. Reifenberg, p. 7, *n.*16.

[4] Schwabacher, p. 144.

some value as a medium of exchange, and that the changeover was a long drawn-out process.

Of coinhoards originating from the 5th Satrapy, three deserve our attention in the present context because of their early date, while a fourth, though somewhat later, is equally significant. One found at Laodicea,[1] which contained coins of Athens and Acanthus, dates from the end of the 6th or the beginning of the 5th century. Another, which includes both early coins and unminted metal, was found at Beni Hasan in Egypt,[2] but is thought possibly to represent a collection assembled on the Phœnician coast.[3] Of first importance to us is the third, from Ras Shamra.[4] This consists of a hoard the melting up of which has been interrupted; some coins surviving intact, while the remaining mass retains the shape of the crucible. The surviving pieces include a tetradrachm from Abdera, undoubtedly of the 6th century, together with coins of Euelthon of Salamis in Cyprus (*c.*560–525) and Thraco-Macedonian specimens to be dated 530–480. The hoard itself is dated by Schaeffer[5] as having been deposited during the second half of the sixth century; he connects its concealment with the conquest of Egypt by Cambyses, or the reorganisation of the 5th Satrapy by Darius. The remaining hoard was discovered at Al-Mina—Sueidia, identified by Woolley with Posidium, near Antioch:[6] it is somewhat later, having been found in Level III, which can be dated with confidence at 450–375 B.C.E.[7] It consisted of 54 pieces—mainly small denominations, including a $\frac{1}{32}$ Shekel from Sidon, but mainly composed of very small silver coins from Aradus (biblical *'Arwād*) one of which, weighing but $\frac{1}{6}$ grain, is said to be the smallest coin known. These coins are early 4th century specimens; but they were contained in a silver *situla*-shaped vessel (now in the Museum at Antioch), which seems on stylistic ground to be earlier, dating perhaps from the 6th century. This " purse " is 6·7 cms. high, with a diameter of 2·5 cms. It has two ring handles and a domical lid with a suspension ring.[8] (See figure).[9]

[1] S. P. Noe, *Bibliography of Greek Coin Hoards*[2] (1937) [henceforth Noe], no. 605 [R. Curiel and] D. Schlumberger, *L'Argent Grec dans l'Empire Achéménide*, in *Trésors Monétaires d'Afghanistan* (Mémoire de la Délégation Archéologique Française en Afgh., 1953), p. 9, No. 19.

[2] Noe, No. 144.

[3] E. S. G. Robinson, Numismatic Chronicle, 5th series, xvii (1937), p. 199. Endorsed by Schwabacher, *op. cit.*

[4] Noe, No. 851. Schlumberger, p. 10, No. 21. Fully described by C. Schaeffer in *Mélanges Syriens offerts a M. R. Dussaud*, p. 461–87. Also in the Illustrated London News for Feb. 20th, 1937, pp. 294–7, Fig. 22.

[5] p. 475.

[6] Noe, No. 39. See Woolley's articles in the Illustrated London News for Dec. 19th, 1936, p. 1149, and the Journal of Hellenic Studies, lviii (1938), p. 1f and 130f. For the identification with Posidium, see p. 28f. See also E. S. G. Robinson's article in the Numismatic Chronicle, xvii (1937), p. 182f, especially 184.

[7] See Woolley, *J. H. S.*, lviii, p. 24, p. 164f.

[8] *Ibid.*, p. 166 (MN 421). For the dating, see Woolley's article in the Illustrated London News.

[9] I am grateful to Sir Leonard Woolley for permission to publish a photograph of the purse.

Before returning to the linguistic evidence in Hebrew, I wish to emphasise four points in regard to the story told by these hoards. (i) The assignment of the Ras Shamra hoard by Schaeffer to the latter part of the 6th century. (ii) The admixture of uncoined metal testifies to the changeover from this to coinage having been an extended process.[1] Schwabacher, indeed, would argue from the inclusion of jewellery in the Al-Mina hoard that its value as a medium of monetary exchange was still sensed in the 4th century. (iii) The very small size of some of the native Syrian coins. The Aradus coins may be compared in this respect with the fractions of the daric and shekel: a $\frac{1}{54}$ daric is known,[2] while small denominations such as $\frac{1}{16}$ shekel were struck at Sidon and plentiful in Phœnicia generally[3]. (iv) The "purse" in which the coins from Al-Mina were discovered may, on grounds of style, be tentatively[4] considered as of 6th century workmanship.

The point which it is the object of this note to prove depends upon a proper understanding of the means by which money was carried in ancient Palestine; it may therefore not be out of place to preface their description by a brief summary of what is known about purses in classical antiquity.[5] The earliest means of carrying unminted metal currency was as a series of interlinked rings. The introduction of coinage, however, necessitated the purse, the main Greek term for which, *μαρσίππιον* (and similar forms) means also a *bag* for victuals or clothes. Other Greek terms are *ἀρύβαλλος*, *βαλλάντιον*, *κυνοῦχος*, in Latin, *marsupium*, *loculi*, *crumena*, *pasceolus*. Travelling merchants, treasury officials, etc., might carry a number of purses in a *vidulus*, *sacciperium*, or *fiscus*—types of coffer or basket. Purses were generally made of leather, closed by a draw-string round the mouth (*πούς*); linen purses have been found at Pompeii. The purse was frequently attached to the belt, and the use of *ζώνη* as money-belt (*e.g.*, Matth. 10, 9), though not authenticated in Greek before the first century C.E.,[6] may be carried back to the 2nd century B.C.E. by the use of *zona* in this sense in a reported speech (if genuine) of C. Gracchus.[7] The *crumella* was worn on a cord round the neck, after the fashion of Babylonian cylinder-seals.[8]

[1] cf. Schaeffer, p. 477; Schwabacher, p. 142.

[2] See G. F. Hill, *B.M. Cat. of Greek Coins* (*Arabia Mesopotamia and Persia*), p. cxxi. cf Plate xxvii, No. 22 (half daric) and Plate lii No. 6 (1/3 shekel).

[3] *Ibid.*, p. cxxiv.

[4] Since there is little with which to compare the object, its dating may be questioned. Mr. R. D. Barnett of the British Museum queries (privately) so early a dating as the 6th century. In a personal communication Sir Leonard Woolley concedes that the matter is one of opinion only and that it need not be pressed against any firm evidence for a lower dating that may be adduced.

[5] See Pauly-Wissowa's *Real-Encyclopädie, Neue Bearbeitung*, xiv (1930), 1981f, *s.v. Marsupium* (signed Hug.).

[6] Liddell & Scott, *Greek-English Lexicon*,[9] *s.v.*

[7] *ap.* Aulus Gellius, *Noct. Att.* xv, 12 (ed. C. Hosius, vol. ii, 140).

[8] Some illustrations are given by Daremberg-Saglio-Pottier, *Dictionnaire des Antiquités Grecques et Romaines*, III, ii (1904), p. 1624, *s.v. Marsupium*. Also of the *sacculus* (a larger version of the *marsupium*) *s.v.*, (IV ii, 933, Fig. 5988).

Several passages of the Hebrew Bible give us a very clear notion of the manner in which uncoined silver was carried when travelling; the operative word is always √*ṣrr* = *bind, tie up* (also, intransitively, *be cramped*). It is to be noted that in passages where the root appears to mean *wrap*,[1] (*a*) the sense is generally poetical and indeed metaphorical, (*b*) the object wrapped (water, etc.) is something which in the nature of things can scarcely be tied, (*c*) the containing material is specified; without the explicit mention of this, hinting that the √ is being used somewhat loosely as a synonym of √*ḥbš* = *bind up* (in bandages, girths, etc.), it is not legitimate to render √*ṣrr* as anything but *tie up*. The noun *ṣᵉrōr* consequently means a *bundle;* and a *ṣᵉrōr* of uncoined silver was either carried, mixed up with other effects, in some fairly large receptacle (in Gen. 42, 35, in sacks filled with corn), or attached immediately to the person: the faithless wife of Prov. 7, 20, describes her husband as having gone off on business, taking the *ṣᵉrōr* of silver *in his hand*, and Deut. 14, 25, contains prescriptions for the conversion by pilgrims of their tithes into silver, which they are to *tie up in their hand* to be carried to the central sanctuary and there spent.[2] 2 Kings, 12, records how, in the 20th year of King Jehoash of Judah (817 B.C.E.), a collection-box for a repairs fund was set up in the Temple with a hole bored (*wayyikkōbh*) (v. 10) in its lid for the reception of (presumably) small fragments of silver (*hacksilber*). When some quantity had been collected, the officers concerned *tied it up* (v. 11 *wayyāṣūrū*) and counted it out (by weight: v. 12 *hakkeseph hamᵉthukkān*). To render *ṣᵉrōr* by *pouch*[3] is thus in Gen. 42, 35, clearly, and in Prov. 7, 20, possibly, an anachronism. The use of the passive participle *ṣārūr* in a metaphor parallel to *ṣᵉphūnāh* (*hidden away, i.e., treasured up*) in Hosea 13, 12, does not compel us to assume an allusion to a *bag;* and in Job 14, 17, where

[1] Prov. 30, 4; Job, 26, 8; perhaps also Hosea 4, 19. Exodus 12, 34, may also be listed here.

[2] For the suggestion that the *tᵉphillin* (phylacteries) and *ṣiṣīth* (fringes) originated from the custom of securing (monetary) valuables by tieing them to the arm or into the headdress, or by wrapping them into the corner of a garment and knotting it with a lace, see H. Loewe, *Mosaic Revelation* (Presidential Address to the Society for Old Testament Study, 1939), p. 9f, 17f. My Father subsequently noted that the interpretation is strengthened by the detail in the story (Gen. 38, verses 18 and 25) of Judah depositing as a pledge his signet-ring, staff, and *fringe* (RV *cord:* AV *bracelets* is incorrect for Heb. *pᵉthīl*. Cf the use of the word in Numbers 15, 38). This explanation for the origin of *tᵉphillin* may be strengthened by comparison with the wrist-purses found on the Roman Wall; for these see, most recently, I. A. Richmond in the Transactions of the Cumberland and Westmorland Antiquarian & Archaeological Society, vol. 50 (New Series), 1950 ('51), p. 69, with a full-sized photograph; also J. Collingwood Bruce, *Handbook to the Roman Wall*[10] (ed. Richmond), p. 138 with figure. These wrist-purses are of metal, though apparently lined with leather (see J. Clayton in Archaeologia Aeliana, New Series vol. 3 (1859), p. 271); but Professor Richmond writes, in answer to a question. "I think it very likely indeed that the form of wrist-purse was derived from a leather bag tied with thongs . . ."

[3] So BDB (alternatively to *bundle*); similarly Ges-Buhl (*Geldkatze*) and Koehler (*Säckchen Beutel*).

transgression is said to be sealed up in a *ṣᵉrōr*, the metaphor derives from the practice of sealing the *string* tied round confidential documents.[1]

The word for a *purse* in Hebrew, as in Aramaic, is *kīs*—probably a Persian loanword;[2] this is used to describe a case for weights, and also for gold in Isaiah 46, 6, where, significantly, the squandering of gold from the purse is mentioned together with the [prodigal] *weighing out of silver in the balance*.[3] This word is also used in Ben Sira[4] meaning a money purse, and regularly in post-biblical Hebrew, where references to coins (*mā'ōth*—an Aramaic loanword in this sense—*maṭbē'ōth* [$\sqrt{ṭb'}$ = *sink in, stamp, seal*], or *mōnīṭā'* [*i.e.* Latin *moneta*]) are frequent.

So long as uncoined silver remains the medium of exchange, its transport tied in bundles, whether included amongst one's baggage or secured to one's person, is convenient enough. Three factors will render it inconvenient or impracticable: (i) The use of gold, since the weight/value ratio is different. (ii) The introduction of circular coins, whether of silver or gold, or of their oval prototypes; from the point of view of size and shape they are less easily tied (unless pierced) than ingots, spits, or unshaped masses of silver. (iii) The minting of minute pieces representing fractional or otherwise small denominations. Any one of these innovations demands the introduction of the purse or similar container; it might, indeed, be argued that the same applies to *hacksilber*, which was doubtless in use long before coins. But the sort of container stout enough to withstand the weight and jagged edges of *hacksilber* would surely be inconvenient for the carriage of small change, assuming that *hacksilber* and small denominations were actually in concurrent use. With regard to (i) it may be pointed out that it is in the Persian period that we first hear of gold as a normal medium of currency in Judæa—*viz.*, the golden daric. The reference to a purse already discussed from [Deutero-]Isaiah (46, 6) which mentions gold (but not coin) is but slightly earlier, since it presupposes the imminent fall of Babylon to Cyrus (538 B.C.E.). Concerning (iii) we may mention again the little purse from Al-Mina[5], possibly of 6th century origin, which is too small to have been intended to hold *hacksilber;* if it is in fact a " purse " by design, it must have been intended for gold or possibly jewellery, the high dating more or less excluding the smaller pieces from native Svrian mints.[6]

One further passage in which the word *ṣᵉrōr* occurs in connection with money remains to be considered; it is of cardinal significance, both by reason of its precise dating and of the form of words that are used. The

[1] Note the parallel hemistich, " and thou didst *plaster* (*wattiṭpōl*) over mine iniquity." See N. H. Torczyner, *Job* (in Hebrew), vol. i (1941), p. 184. Torczyner explains Isaiah 8, 16, similarly. More briefly, in E. ben Yehudah's Hebrew *Thesaurus*, vol. xi, p. 5626, col. 2, note 1.

[2] كيسة (so BDB, following Lane's Arabic dictionary).

[3] Cf also Prov. 1, 14 where *kīs* = common *fund* of a gang of thieves.

[4] See N. Peters, Ecclesiasticus 18, 33, p. 363.

[5] See above, p. 144.

[6] See above, p. 145.

first discourse of the prophet Haggai is dated in its heading as having been delivered on the 1st day of the sixth month (*i.e.*, *'Elul*, August–September) of the second year of Darius (520 B.C.E.). The prophet reproaches his contemporaries for their neglect to rebuild the shell of the destroyed Temple, and roundly asserts that it is their indifference in this respect that is responsible for the untoward economic conditions of the time; goods are in short supply, and money goes nowhere. The phrase which concerns us comes as the climax of a passage whose style is marked out as rhetorical by the repeated use of the infinitive absolute (1, 6): "Ye have sown much, but little is brought in; one eats, but to no satisfaction; drinks, but to no exhilaration; puts on clothes, but cannot get warm; and *whoever hires himself out, hires himself* [*for wages to put in*] *to a pierced bundle*" (*ṣᵉrōr*).[1] The words in square brackets must be supplied, but the pregnant or elliptical construction with the preposition[2] is regular in Hebrew and not harsh. The word rendered *pierced* (*nāḳūbh*: √*nḳb* = *bore through*) is inappropriate to a bundle tied with cords, or even wound round with bands (for which in any case √*ḥbš* or √*krk* would be required rather than √*ṣrr*, *ṣᵉrōr*), and presupposes a receptacle of some kind, perhaps a purse of the type that we have illustrated. The same will also apply to the *ṣᵉrōr* of myrrh to which the lover is compared in Song of Songs 1, 13; myrrh is an exudate, measured by weight,[3] so that we must visualise a *vinaigrette* rather than a nosegay or bunch of the original plant, which does not lend itself to such use as a cosmetic (contrast the *bunch* (*'ᵃghuddāh*) of hyssop in Exodus 12, 22).[4]

The combination *a pierced bundle* is a striking one—perhaps, indeed, deliberately chosen for its rhetorical effect; it may possibly have been intended to convey not only the idea that money goes nowhere, but that in addition to shortage and poor quality of consumer goods, labour is cheap (economically a feasible situation)—all that can be earned, assuming that one is lucky enough to secure some employment, is a wage so low as to be paid out in small denominations that are liable to be lost if one's purse springs a hole.[5] Even if it be thought that this last is reading too much into the phrase, it remains true that the figure of speech is unintelligible unless we visualise a *purse* and not a *bundle;* money has so little purchasing power, and is so quickly spent, that one's purse seems to have a hole in it. The ancient versions and the commentators, mediæval and modern, either render the Hebrew word for word, as do the Septuagint (δέσμον τετρυπημένον)[6]

[1] והמשתכר ישתכר אל צרור נקוב.

[2] Gesenius' Hebrew Grammar, ed. Kautzsch-Cowley, §119*g*.

[3] Exodus 30, 23–4.

[4] Of the remaining instances of *ṣᵉrōr* in the Hebrew Bible, 1 Sam. 25, 29, is clearly a metaphor derived from a *bundle* (cf Gen. 44, 30). Prov. 26, 8, is obscure, *ṣᵉrōr* probably being not the noun but the infinitive construct of the verb, in the sense of *wrap* (the material being mentioned; *margēmāh* apparently = (?) *sling*. The homonym in 2 Sam. 17, 13, and Amos 9, 9, means *pebble* (III√*ṣrr*, perhaps = *be sharp*, Arabic ضَرَّ).

[5] So H. G. Mitchell in the *International Critical Commentary* to Haggai, &c. (1912), p. 46.

[6] Similarly elsewhere, as also the one relevant hexaplaric variant κύμβος (*band*) in Gen. 42, 35 (Ἄλλος). But in Job 14, 17, LXX render *ṣᵉrōr* by βαλλάντιον (*purse*)—a word which, together with a second rendering μαρσίππιον (*pouch*), they use to translate *kīs* (= *purse*) in Proverbs 1, 14.

and the *Peshiṭta:* or translate *ṣᵉrōr* as if it could legitimately be taken as purse—thus the Old Latin and the Vulgate (*sacculum pertusum*),[1] Abraham ibn Ezra, H. G. Mitchell,[2] Horst,[3] and Weiser-Elliger.[4] The Targum paraphrases.[5] Rashi, though he mentions coins, has sensed that the word *ṣᵉrōr* may not, conscientiously, be rendered *purse*, and his comment reads "... like one who puts his coins into a knot [tied in a] pierced garment";[6] David Kimḥi's exegesis is similar.[7] But √*nkb* means *pierce*, not *rend* (√*kr*ʿ) or *wear out* (√*blh*), and is therefore scarcely applicable to a garment made of *cloth;* while a leather jerkin, which might conceivably be said to be pierced, can scarcely be tied in a knot round a few coins in the same way as an ordinary garment might.[8] Granted that the phrase is an unusual one, *a pierced bundle* is the only translation of the Hebrew *ṣᵉrōr nāḳūbh* that is, from the point of view of strict philology, unassailable.

It remains to explain how the word *ṣᵉrōr* = *bundle* could have been used by Haggai where a *purse* was clearly intended by him without risk of either misunderstanding or ridicule. The Ras Shamra hoard referred to above, which is assigned by Schaeffer to a date within five years or less of Haggai's discourse, indicates that both coins and unminted silver were current at this period in the 5th Satrapy; and if the refinement suggested above carries conviction, namely that Haggai has in mind coins of *small* denominations as opposed to higher sums that would be paid in larger coins or unminted silver, a similar situation may be reflected in Judæa. Even without this assumption, the use here of *ṣᵉrōr* = *bundle*, rather than *kīs* = *purse*, is adequate to prove the point. Semantics are not susceptible to the control of logic. The idea of *ṣᵉrōr* came to centre less round the act of tying or the binding material, than round the substance enclosed or secured; alternatively (and this is perhaps the more likely), if we assume that the earliest purses in Israel were not of metal like the one from Al-Mina, but leather pouches, secured by means of a draw-string, as in the Greek and Roman world,[9] the act of *constricting* the mouth by pulling [and subsequently knotting] the string might properly be described by the root *ṣrr*.[10] When, therefore, the purse began to compete with and ultimately to displace the bundle as a means of carrying

[1] Also in Job 14, 17.

[2] See note 49.

[3] *Handbuch zum Alten Testament, Die 12 kleinen Propheten* (1938), p. 198 (*in einen löcherichen Beutel*).

[4] *Das Alte Testament Deutsch, Das Buch der xii kleinen Propheten*, p. 81.

[5] *Hires himself out for a curse* (מתגר דמתגר) למאירתא. In Job 14, 17 *in a book* (בספר).

[6] בקשר בגד נקוב.

[7] בצרור בגד שהוא נקוב.

[8] Cf note 38. It may be further noted that the ordinance of fringe-wearing is applicable, according to Maimonides, strictly to garments of wool or flax only: in so far as fringes are attached to other material, it is but a rabbinical protective ordinance (*Mishneh Tōrāh, Hilkhōth Ṣiṣṣīth*, iii §1–2). He adds (§4) that a woollen or linen garment with a leather-trimmed corner is subject to the law of fringes, but not the reverse case.

[9] See above, p. 145.

[10] Cf Joshua 9, 4, where the *puʿal* of √*ṣrr* is used of cracked skins that have been mended by tieing round (*i.e.*, knotting off) the portion with the aperture.

money, the word *ṣᵉrōr* not unnaturally shifted its meaning. It survived into rabbinic Hebrew[1] alongside the Persian/Aramaic loanword *kīs* = *purse*, the two being virtual synonyms; one passage[2] suggests that the *kīs* was a larger affair, used by moneylenders, etc., and the *ṣᵉrōr* the type of purse in everyday use.[3] From the same √ we have likewise the Syriac ܟܝܣ, diminutive ܟܝܝܣ, and the Arabic كِيس, meaning *purse*.

Haggai's use of the phrase which has been discussed seems to me sufficient to prove that coins were circulating in Judæa, and were familiar enough there to form the subject of an oratorical allusion, by early in the reign of Darius—a supposition that fits in closely with and is confirmed by the numismatic history of the 5th Satrapy as revealed by archæology; and it antedates the earliest known Judæan coin, the Hebron half-shekel, by some 70 years. It is, however, possible to argue that while the phrase *ṣᵉrōr nāḳūbh* is inapplicable to unminted silver bars, ingots, etc., such as would normally be carried in bundles, and does indeed presuppose smaller articles or fragments such as require a container, the evidence can be satisfied by assuming a reference to *hacksilber*. Against this it must be urged that at any rate the Al-Mina " purse," in view of its small size, cannot have been designed to carry *hacksilber;* nevertheless, this article is unique, and generalisation from it scarcely warranted. I think that it is, to say the least, probable that Haggai had small coins in mind—possibly specimens minted in Phoenicia or northern Syria, there being so far no archæological trace of local mints, perhaps even a Thracian piece or a migrant owl. But in view of the claims of *hacksilber* to consideration, I have deemed it proper to punctuate the title of this note with a question mark.

[1] Mishnah *Kēlīm* 26, 2. Also for pearls, *ibid.* (Danby's translation, p. 642). Of a purse of gold pieces, Palestinian Talmud, *Sabbath*, 13, 6. The verb is likewise used still in the sense of putting money into a purse, etc., *e.g.*, Mishnah *Baba' Meṣi'a'*, 3, 11 (Danby, p. 352), Palestinian Talmud, *Bᵉrākhōth* 2, 5. *Tosephta Bᵉrakhōth* 7, 19 (ed. Zuckermandel, p. 17).

[2] Palestinian Talmud *Yᵉbhāmōth* 15, 5, also *Sanhedrin* 5, 2.

[3] Similarly the Roman *sacculus* was a larger version of the *marsupium*. Another post-biblical Hebrew word for a money-container is *pūnda'* (*i.e.*, Latin *funda*).

Silver ' purse ' from Al-Mina.

MESSIANIC SYMBOLS IN PALESTINIAN ARCHAEOLOGY

By Cecil Roth

Increasing attention has been paid of late to the symbols which figure in Jewish monuments of the classical period: essentially, that is, of the first centuries of the Christian era, down to the period of the disintegration of the Roman Empire.[1] In the new approach I am suggesting in this paper, I would like to lay down three principles. First, that the symbols must mean something: they were not utilised indiscriminately, because they were thought ornamental or interesting. Second, that they must be considered not independently, but in relation to one another, as a consistent whole. And third, that they should be interpreted where necessary in the light of medieval Jewish ritual art, as well as of contemporary documentation. It is not necessarily a question of continuity of tradition, though I do not think that this possibility should be automatically excluded in all cases. What I suggest is that the mind of the traditional Jew, working in the fourteenth century along much the same lines as in the fourth, is not unlikely to have expressed itself in much the same way. Not only late survivals, but spontaneous reinterpretation in similar fashion, may sometimes help in our enquiry.

The guiding principle in the Jewish symbolism of the early centuries which I venture to propose is the Messianic Idea, or rather, the hope for Redemption in its wider sense. It must be born in mind that this was then at the very basis of Jewish life. The destruction of the Temple in the year 70 did not diminish it. On the contrary, the catastrophe inevitably strengthened it; for whereas it was arguable that Roman rule before 70 was compatible with a pacifist pharisaic Judaism, the Destruction of the Temple demanded Divine intervention for its restoration; and it was expected that the Restoration would take place very soon, when the sins of the people had been expiated by their suffering. The lapse of time intensified rather than diminished the messianic excitement. The captivity after the destruction of the First Temple had lasted according to tradition for seventy years, and one may take it for granted that on the expiration of a similar period after the destruction of the Second Temple the fever increased; this may well have been the ultimate reason for the Jewish Revolt under Bar Cochba in 132–5. And, so long as there was a solid, coherent Jewish settlement in

[1] See now in particular the magnificent work of E. R. Goodenough, *Jewish Symbols in the Greco-Roman Period*, New York, 1953, sqq. Although his conclusions do not command universal agreement, the mass of material he has assembled makes his work of inestimable value for students. In the present article, objects which figure in his volume of illustrations will sometimes be indicated by the letter G. followed by the plate-number.

Palestine, the idea of the restoration of national independence, whether by natural or by supernatural means, remained uppermost in people's minds; we now know that down almost to the end of the first millennium the twenty-four Priestly Watches remained organised and held themselves ready at their allotted periods to resume service in the Temple when the call came. It was only when Diaspora Jewry took over the lead in Jewish life that Messianism became a theological dogma, and not as in Palestine a political obsession. One may therefore imagine that this idea, the idea of deliverance, was likely to figure to an overwhelming extent in Jewish symbolism of the early centuries. Let us see how far archaeological monuments confirm this theory.

We may begin with what is by far the most common group of symbols found at this period: the seven-branched Temple Candelabrum (the *Menorah*), flanked on the one side by the curved ram's horn (*shophar*) and on the other by the palm-branch (*lulab*). This group is found times without number, in all lands and in all manner of media, with remarkable persistence; in tombs, catacombs, mosaics, synagogue-carvings, reliefs, stamps and seals, lamps, glass jars, medallions of all sorts.[1] The connexion between the three objects is not obvious, but certainly there must have been some readily-understood ideological link between them in that period. Normally, it is held that they are intended as symbols of Judaism and Jewish observance. The Candelabrum which figures so prominently in the Temple (Exodus xxv, 31) was naturally regarded as typical of Jewish religious life as such, and for this reason occurs independently too, times without number, especially on Jewish graves. The ram's horn, the sounding of which had become characteristic of the New Year (cf. Numbers xxix, 1), is considered to represent that solemnity, while the palm-branch stood for the Feast of Tabernacles, with the observance of which it was associated (cf. Leviticus xxiii, 40). Thus, it is suggested, the grouping stands for the basic Jewish ritual observances.

As it seems to me, this interpretation is quite untenable, for each of the three symbols is as it were on a different plane. The *Menorah* is a symbol of Judaism as such or of the daily Temple service: the other two objects represent only periodic observances. Moreover, they are themselves incoherent. The New Year and Feast of Tabernacles are very different in the Jewish tradition: the one is a "Day of Awe", the other one of the three joyous Pilgrim Feasts—and not the most important of them. To omit any

[1] A. Reifenberg, in the plates in his *Ancient Jewish Arts* (New York, 1950) shews this grouping perhaps as many as twelve times—e.g. on pp. 106, 113, 139, 141, 142, 143, 154 and so on—sometimes on what are apparently domestic objects, proving the profound significance attached thereto. But this is only a tiny selection of the material. Cf. recently for example J. Kaplan, *A Jewish Lead Weight from Ashdod* in *Eretz-Israel: Archaeological Historical and Geographical Studies* (published by the Israel Exploration Society), i (1951), p. 73, and M. Narkis in *Jerusalem* (Essays in memory of A. M. Luncz, 1928), pp. 203–4, in which he describes two glass medallions bearing these symbols.

symbol for the Day of Atonement on the one hand, for the Feasts of Passover and Pentecost on the other, is obviously inconsistent. And it was not beyond the power of ingenuity to find symbols for these other occasions: in later Jewish ritual art, it was not unusual to decorate various cult-objects with symbols of the great occasions in the Jewish religious year, and there was no difficulty in meeting all requirements, Passover being for example represented by an unleavened cake.[1] Indeed, the *lulab* by itself could hardly be considered a symbol of the feast of Tabernacles: the citron or *etrog* was for this purpose its inevitable accompaniment (cf. Leviticus xxiii, 40). The suggestion[2] that the *Menorah* represents the Sabbath light obviously does not help, for the simple reason that the Sabbath light was not in this form, and there was an outright prohibition to make anything similar to the Temple candelabrum for other use.

Another explanation is therefore needed: and as it seems to me the only one which can explain the grouping as a whole, and at the same time its extraordinary appeal, universality and persistency, is the one that I have suggested: that all three were Messianic Symbols, or Symbols of Redemption, of cumulative force. There is no need to elaborate on the interpretation of the *Menorah* in line with this conception. The most prominent feature in the Temple, which impressed itself (as is clear from the relief in the Arch of Titus) no less on Gentiles than on Jews, it was obviously the symbol of the Temple worship, of the Temple restored, of Judaism itself. The *shophar*, similarly, had a specific Messianic connotation. It was not merely a feature of the New Year ritual. It was also associated in the popular mind with the Great Redemption, when God would " blow on the great *shophar* " to gather the remnant of His scattered people (Isaiah, xxvii, 19) on the great day when, so doing, He would be seen over them, going with the whirlwinds of the south (Zechariah, ix, 14). The phraseology and conception were deeply impressed on the Jewish mind, and the fundamental *Amidah*-prayer, recited thrice daily (certainly anterior, perhaps long anterior, to 132) petitioned the Almighty to " Sound the great *Shophar* for our deliverance ". " It is by the Ram's Horn that they will be redeemed," one Rabbi emphatically states.[3] Hence, the ram's horn in the familiar grouping may

[1] Such representations figure not infrequently on spice-boxes used in the *Habdalah* ceremony at the conclusion of the Sabbath.

[2] By T. H. Gaster in a review of Goodenough in " Commentary," February, 1954.

[3] Cf. *Midrash Tanhuma* and similar expositions to Genesis xxii, 13. The allusion is of course to the Ram of the Sacrifice of Isaac, which was considered to have an expiatory value. This may explain the ram's head on some Roman catacomb inscriptions. Cf. J. B. Frey, *Corpus Inscriptionum Iudaicarum*, vol. I (Rome, 1936), Nos. 208, 209. However, I would like to call attention to the fact that the first two lines of the former begin: AEL. ALEXANDRIA, AEL. SEPTIMAE, and that something like *Ael* (אֵל) is the Hebrew word for Ram; is it conceivable that we have here a canting inscription? In the next example, a ram's head is over the abbreviated name AUREL, a bull's over IOSES: cf. Deut. xxxiii, 17, which became proverbial.

It may be pointed out here that in No. 208 a jar in the original is converted by the Editor into an Amphora.

well stand for the "*Shophar* of Redemption", the idea of which was familiar to every Jew.

Similarly, the *Lulab* was not merely associated in the Jewish mind with the Feast of Tabernacles. It symbolised, as it still does, victory, deliverance and jubilation. When Jesus entered Jerusalem "a very great multitude . . . cut down branches . . . and strawed them in the way . . . and . . . cried 'Hosanna to the son of David'" (Matthew xxi, 8–9; cf. Mark, xi, 8–9). What branches were used for the purpose is made clear by the parallel passage (John xii, 12–3): "Much people . . . took branches of palm-trees and went forth to meet him and cried 'Hosanna'". That this was at Passover-time had nothing to do with the matter: it was a token of deliverance and rejoicing, as it has indeed remained in Christian symbolism. What took place on this occasion was in a line with normal usage. When in 141 B.C. Simon Hasmonaeus at last occupied the Acra in Jerusalem, he made his entry "with praise and with palm-branches and with lamps and with cymbals" (I Maccabees xiii, 51): it may be observed that this was in the month of *Iyyar*—i.e. four or five months before the feast of Tabernacles. The usage continued among the Arab tribes to our own day. As I am informed,[1] when the Grand Senussi re-entered Lybia in 1944, the doors and windows on his route were framed in palm-branches, the doors in particular having arches of palm around them. Thus the palm-branch, too, is a token of Redemption: and the grouping—*Menorah*, *Shophar*, *Lulab*—is of three basic Messianic symbols, emphasising the daily expectation of the Deliverance of Israel.[2]

If this is so, a similar interpretation should perhaps be applied to the presence of the *Menorah* on Jewish graves, etc., whether it is alone or accompanied by the other symbols. It does not merely stand for the Judaism, but for the Temple; and for the restoration, with the Temple worship, of the independent status of the Jewish people. It is accompanied, very frequently indeed, by the Hebrew word שלום, "Peace": often, the only Hebrew to be found in a whole series of sepulchral inscriptions[3]. It is natural to interpret this with reference to the departed, as a prayer for his eternal repose. But, if my interpretation of the most common funerary symbol is correct, may not the interpretation of the most common funerary inscription be in a line with this—a prayer for the well-being of the people of Israel: indeed, it is sometimes[4] found in a somewhat expanded form: שלום על ישראל —"Peace

[1] In a letter from Mr. C. T. Norris, who was present.

[2] My argument is in no wise affected by the fact that the *Etrog* (Citron) is in fact sometimes shewn together with the *Lulab*, for it would have been natural for a Jewish craftsman, depicting the latter, to add the former, which normally accompanied it. In other words the *Lulab* without the *Etrog* could not symbolise the Feast of Tabernacles, but it symbolised Victory whether the *Etrog* was present or no.

[3] Frey lists nearly forty instances of this, mainly from Rome.

[4] *Ibid.*, Nos. 293, 397, 670.

on Israel" (Psalm cxxv, 5). Occasionally, the Greek equivalent seems to be almost even more pointed Χαίρειν τῷ λαῷ[1]—"Well-being to the [Jewish] People." Thus, the universal funerary inscription may refer not to personal so much as to national immortality: not the eulogy of the mourners for the departed, but the aspiration of the departed for his people.

I do not wish however to insist on this point, which is secondary to my thesis, but go on to a symbol carved prominently and carefully in the stone frieze of the second-century Synagogue of Capernaum, which has given rise to a great deal of discussion but has not been satisfactorily interpreted thus far: a covered wagon, on wheels, with doors slightly ajar (a point to which I do not think attention has been drawn hitherto). Its prominence makes it certain that it must have some precise and vital significance, but what is not clear. Normally, it is interpreted as being the Ark of Covenant travelling in the Wilderness, or as it was brought back from the Philistines to Kirjath-Jearim (cf. I Samuel vii): but there was no reason why this central cult-object should be shewn as it was on this isolated occasion. It is true that there is a close resemblance between this and the representation of the Ark shewn on the Dura-Europos synagogue fresco. But, in any case, would the Tabernacle be shewn with partly-open doors? Alternatively, it is described as a Torah-shrine, as it existed in the contemporary synagogue. But why this, as an external decorative feature of the Synagogue itself? And though there is evidence that at this time the Torah-shrine was portable, there is no evidence that it was wheeled. The late E. L. Sukenik, dissatisfied with both of these explanations, suggested tentatively and dubiously[2] that the reference is to the "Study of the [Divine] Chariot" (מעשה מרכבה), as mystical lore based on the Vision of Ezekiel was termed at this time: but, apart from the obvious objections, the "Chariot" does not bear any great resemblance to that described by the Prophet. Watzinger considered that it represents a Roman *carruca* (Talmudic קרוכין etc.: cf. Genesis R. viii: T. J. Meg. i, 70c., etc.) used by princes and other dignitaries, this being one of the privileges of the Patriarch of Palestinian Jewry[3]: but again, there does not seem to be the slightest reason why this should figure prominently as a religious symbol in the decoration of a synagogue.

The term *carruca* used by Watzinger suggests however another explanation. Jerome, writing in Palestine at the beginning of the fifth century, informs us how in his day the Jews believed that in Messianic times those among them who had attained senatorial dignity would be brought back from the far-scattered Diaspora—from Spain, Gaul, Germany, even Britain—in chariots, for which he uses this same term, *carruca* (Commentary on Isaiah, lxvi, 20, in

[1] *Ibid.*, Nos. 699–707—all from Larisa—but the Jewish ascription seems to me dubious.

[2] *Ancient Synagogues in Palestine and Greece*, London, 1935, pp. 17–18, note.

[3] H. Kohl and C. Watzinger, *Antike Synagogen in Galilaea*, Leipzig, 1916, pp. 193–5.

Migne, *Patrologia Latina*, xxiv, 672): *Quod videlicet in consummatione mundi . . . de toto orbe reducatum filii Israel . . . Qui autem senatoriae fuerunt dignitatis, et locum principum obtinuerint, de Britannis, Hispanis, Gallisque extremis hominum Morinis, et ubi bicornis funditur Rhenus,* IN CARRUCIS VENIANT, *occurrentibus sibi cunctis gentibus quae eorum servituti fuerint preparatae*). This is an expansion of Isaiah lxvi, 20: " And they shall bring all your brethren for an offering to the Lord out of all nations, upon horses, and in chariots, and in litters, to my holy mountain Jerusalem," rendered in the Vulgate, " *in lecticis et in carrucis* ": but it appears from Jerome's words that the *carruca* was uppermost in the mind of contemporary Palestinian Jewry. Thus, the finely-executed and suggestively-displayed " wagon " of the synagogue frieze in Capernaum may well be intended to symbolise the Ingathering of the Exiles at the time of the Messianic deliverance: a conception certainly consistent with the prominence given to this feature.

This may perhaps give us the clue to the interpretation of another symbol found in the decoration of the synagogues of the classical period, which may be linked without an excessive display of ingenuity to the same conception. It was pointed out forty years ago that the eagle, generally with outspread pinions, plays a foremost role in the decoration of the Palestinian synagogues of the early centuries[1]. This statement was based in particular on the sculptured decoration from Tell-Hum (Capernaum), Ed-Dsisch (Gischala), ed-Dikke and Um el-Kanatir. There are other examples in the synagogue ruins of er-Rafid, Khirbet Dubil and Yaffa (in Galilee) where there is in addition a fine representation on the mosaic floor of the synagogue: while it is to be found also on a clay lamp, not certainly Jewish in origin, from the village of Bettir near Jerusalem, once the capital of Bar Cochba's short-lived state. Goodenough has assembled, all told, no fewer than fourteen instances.[2]

It might have been thought that this representation of a living creature would have been considered especially obnoxious, because of its association with the Roman legionary standard and with Herod, whose action in fixing a golden eagle over the Temple Gate in Jerusalem aroused such determined opposition, with such sanguinary results. Nor is its presence in Synagogue decoration to be explained logically—as it sometimes is—as a common funerary symbol at that time in Syria, etc.: for such a feature is from every point of view alien to a place of worship.

Yet all these manifold representations, in various media, assuredly suggest some specific implication. The pious Jew, as he saw them in his synagogue, would naturally be reminded of a familiar verse of the Pentateuch (Exodus xix, 4) which, though originally applying to the period of the Redemption from Egypt, was because of the use of the future tense inevitably associated with the redemption that was to come: " *And I* [*shall*] *bear you on the wings of an*

[1] *Ibid.*, p. 195.

[2] Cf. Goodenough, *op. cit.*, I, 217, etc., and the corresponding illustrations in his third volume (285, 459, 461, 465, 475, 493, 522, 527, 531, 538, 569, 598, 991, 993).

eagle and bring you unto Myself". This verse, as applied to the Messianic age, was reinforced by the striking simile in the last Song of Moses (Deuteronomy xxxii, 11–12): "As an eagle stirreth up her nest, fluttereth over her young . . . beareth them on her wings: So the Lord alone [shall] (did) lead him". "'*As an eagle stirreth up her nest*'—this refers to Future Time", says a Midrash (*Yalkut: Ha'azinu*, § 944): and the *Zohar* to Exodus xxix, 6 (written down late, it is true) reflects inevitable popular exegesis when it refers "I bare you on eagle's wings" to the Messianic times to come.

Thus the Eagle, like the *carruca*, had a clear message to the worshippers in the Synagogue—of the imminence of the Messianic deliverance and in-gathering of the Exiles, and of the certainty of Divine succour in the future as in the past. Perhaps the fact that the Eagle was common also in contemporary pagan symbolism, with a wholly different significance, may at the same time have permitted Jewish masons to make use of it freely, without any suspicion of treasonable intentions towards the Roman government.

If I am right in this, a satisfactory interpretation may be forthcoming, from the same line of reasoning, for another symbol found in Palestinian Jewish archaeology. The catacombs of Beth Shearim, dating to the Tannaitic period, which are still being investigated, served as a central burial-place for Jews from the Diaspora as well as Palestine—probably because the Patriarch, Rabbi Judah I, compiler of the *Mishnah*, was buried there. Among the many representations of different sorts found in this vast necropolis is a ship, with masts, sails and rigging, which figures twice: presumably, therefore, not a casual graffito[1]. In addition, an inlay in the same form, but a good deal simpler, now in the Palestine Museum, has been found there (G. 980). A ship is also to be seen in Rome in the catacombs of the Villa Torlonia.[2] It cannot very well be a sort of imitative Jewish counterpart of the ferry of the river Styx in classical mythology, as might be imagined at the first glance, for what we have in question here is in half the instances a sea-going ship, not the ferry-boat of the pagan myth. I venture to suggest that like the *carruca* of Capernaum, it too, symbolises the end of the dispersion. There is more than one Biblical passage which suggests the ingathering of the exiles by sea: for example very pointedly, in the same chapter quoted above (Isaiah lx, 9): "Surely the isles shall wait for Me, and the ships of Tarshish first, to bring thy sons from far." Thus the ship, like the *carruca*, can suggest the national restoration in Palestine. By a curious coincidence, in the Bokharan Great Synagogue in Jerusalem, a very recent fresco at the side of the Ark shews a ship, symbolising the end of the Dispersion, with the legend beneath: "If I forget thee, O Jerusalem, let my right hand forget her cunning" (Psalm cxxxvii, 5). I do not suggest any continuity of tradition: only that ardent,

[1] B. Maisler, *Beth Shearim. Report on Excavations*, 1936–1940, Jerusalem, 1944, Pl. XI and XX.

[2] Frey, *op. cit.*, p. 44.

pious minds worked in a similar fashion at an interval of eighteen hundred years.

This same conception may as it seems to me provide the key for other hitherto-unexplained symbols found in the Beth Shearim catacombs. For example, in catacomb I, hall 11, fairly elaborately carved on the stone of the wall, is a horseman[1]: not far off, a man leading what is probably a donkey, but might be a horse or a mule[2]. That the representations are casual and meaningless is hardly to be imagined: however crude, they are elaborately conceived, and it is obvious that the " artist " had something definite, and to him important, in his mind. What this is, investigators have failed hitherto to determine. Yet anyone who is familiar with medieval Jewish ritual art, and connects the two in his mind, would have very little doubt about the answer. For, in the Passover Eve ritual (*Haggadah*)—both in the 14th and 15th century illuminated manuscripts and in the 16th century illustrated versions in print—it was usual to include a scene of a man riding a steed, and sometimes led by another (in some cases, the latter is blowing the " *Shophar* of Redemption ") representing the Messiah and the prophet Elijah[3]. This is inspired by the familiar verse of Zechariah ix, 9: " Rejoice greatly, O daughter of Zion: shout, O daughter of Jerusalem; behold, thy King cometh unto thee. He is triumphant and victorious—lowly, and riding upon an ass, even upon a colt, the foal of an ass." I do not know whether one should link up with this also the apocalyptic vision of Revelation xix, 11–21—" And I saw the Heaven opened and beheld a white horse: and he that sat upon him was called Faithful and True." But the passage of Zechariah obviously impressed the Jewish mind. There is no need to emphasise how its literal fulfilment is referred to in the Gospel story (Matthew xxi, 1–7: Mark xi, 1–7: Luke xix, 30–35). Rabbinic fantasy was equally positive. For example, we read in T.B. *Berahoth* 56b: " He who sees an ass in his dream should look insistently to the Redemption, as it is written ' Behold thy King cometh unto thee . . . lowly and riding on an ass ' ". Even more pointed is the *Midrash Tanhuma* on Genesis xxxii, 6, " And I have ox and ass " [the Hebrew is in the singular]: " ' *And Ass* '—this refers to the King Messiah ". It must be stated at once that taken out of its context this exposition seems much more significant than it actually is. Nevertheless, it is obvious that the steed had a definite Messianic connotation. Some later legends enhanced fantastically the significance of the Messianic mount, whose record was traced back significantly through the ages; it was thus told how Abraham's ass was ridden by Moses when he went to Egypt, and this was the very steed which the Redeemer would mount in time to come (*Pirke*

[1] Maisler, *op. cit.*, Pl. XIV and XV.

[2] *Ibid.*, Pl. XIV.

[3] The scene is shewn for example in a fifteenth-century Haggadah MS. in the Staatsbibliothek, Münich, and in another in the Bodleian Library, Oxford, as well as in the printed Prague Haggadah of 1522 and in the seventeenth-century Venetian editions.

deR. Eliezer, 31). Here again, then, the cryptic symbolism of Beth Shearim seems to acquire a direct Messianic significance.

We may perhaps apply the same formula to explain one of the most curious and elaborate wall-carvings in Beth Shearim—the figure of a man carrying (or rather embodying) a seven-branched Candelabrum on his head, in catacomb III, hall 3[1]. I would suggest that this might be interpreted as symbolising the light to the Gentiles which was associated with Messianic times. Thus Isaiah xlix, 6, promises: "I will also give thee for a light to the nations"—here shewn in a very personal fashion—" that my salvation may be unto the end of the earth," or again, *ibid*, lx, 1: " Arise, shine, for thy light is come", or *ibid*, verse 3: " And nations shall walk by thy light ".

I do not insist on these interpretations, which are secondary to my main object. There is however one small point that I would wish to emphasise. The fact that this was the burial place of the Patriarch, Judah I, makes it all the less likely that these representations were trivial and meaningless, or that the symbolism blindly reflected pagan fashions.

If Messianic symbolism was as important as I have suggested in the classical period, it should be possible to trace it also in the largest and most consistent body of Jewish symbols of this age—that is, the great corpus of Jewish coins. I approach this technical and complicated branch of study with the utmost hesitation, and think it best for my purpose to accept the datings and ascriptions of the most recent and perhaps most brilliant student of Jewish numismatics, Adolf Reifenberg, whose untimely death in 1953 was so serious a blow to Palestinian archaeology (*Ancient Jewish Coins*, 2nd ed., Jerusalem, 1947). Much work has indeed been done on the interpretation of the symbolism of ancient Jewish coins, including a long and detailed study of A. Romanof[2]. It seems to me however that he, and others who have dealt with this question, have failed to take into account the changing historical circumstances of the periods with which they deal. There is indeed no reason at all why any coin, issued in Palestine throughout the classical period, should not bear some allusion to the characteristics or the natural produce of the country. Jewish religious symbols, or allusion to the circumstances of Jewish worship, might logically be found in periods when there was some show of Jewish independence—e.g. under Herod—however qualified this independence might be, and however obvious was the Roman authority; but assuredly not under the Procurators. On the other hand, patriotic symbols in the more restricted sense of the term—including what I term here " Messianic Symbols "—obviously could be possible only in the interludes of full independence, when the foreign yoke had been cast off. Moreover, even so, the Messianic element would lose its compelling force

[1] Maisler, *op. cit.*, Pl. XXV.

[2] A. Romanof, *Jewish Symbols on Ancient Jewish Coins*, in Jewish Quarterly Review, n.s. Vols. XXIII, XXIV; also published as an independent volume.

once independence had been fully established for some time and seemed to be secure henceforth from disturbance.

Hence one might anticipate Messianic symbols on the Jewish coinage at only three periods. First, at the time of the Hasmonaean revolt, with the issue of the first Jewish coins under Simon in and shortly after 142 B.C.; secondly, at the time of what is generally termed the First Revolt, A.D. 66–70; and thirdly, during the brief re-establishment of independence under Bar Cochba, A.D. 132–135. Clearly it is at these times, and at these times only, that it would have been both possible and natural to include in the Jewish coinage Messianic indications, or references to the restoration of independence or the renewal of the Temple worship. In the intervening periods, the symbolism was more likely to refer to the characteristics or ambitions or natural resources of the country: while in the period of Roman rule, whether open (as under the Procurators) or veiled (as under the Herodians) any hint of Jewish independence or strivings is obviously suppressed. Examining the early Jewish coinage from this point of view, it seems to me that my theory sometimes places the problem in a new perspective and begins to introduce order into apparent chaos.

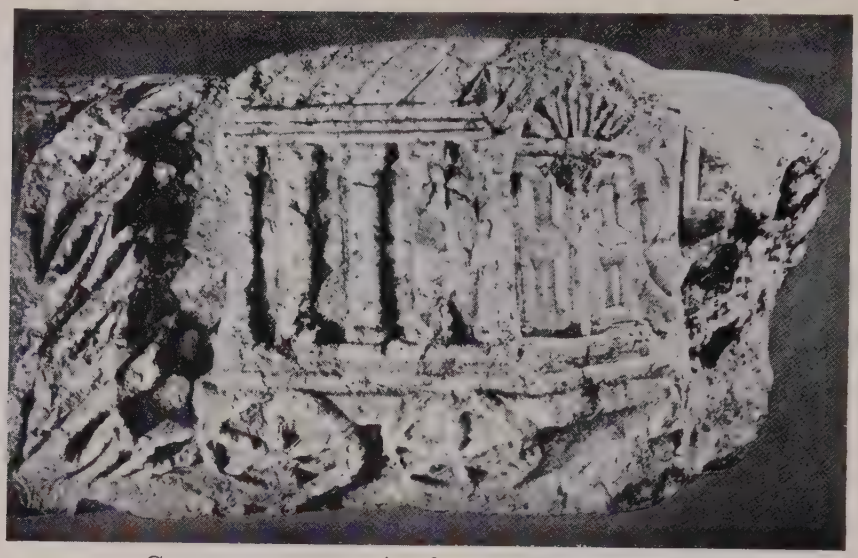
Looking at Reifenberg's plates for guidance, one finds associated with the period of the First Revolt a series of nine coins (Pl. X), all bearing what has been described as a "jewelled chalice". This symbol occurs infrequently, but one finds it again in two of the earliest coins of all, issued by Simon Hasmonaeus (Pl. I), *and at no other time*. Hence, the "jewelled chalice" figures only at what I have termed periods of "Messianic excitement". I submit therefore that in order to explain it we must look for a Messianic interpretation: and in Jewish tradition this is not difficult. Romanof considered[1] that what is in question here is the "pot of manna" which was preserved in the Sanctuary. But there is no evidence that the receptacle in question had this form, nor any reason why this relatively inconspicuous former Temple appurtenance should figure so prominently and so repeatedly, at precisely these periods and at no other. The same objection applies I feel to the other explanations that have been offered: Reifenberg's, that it was the covered cup used for the wine-libation, or Rogers'[2], that it represented the High Priestly dignity. I venture to think that the contemporary Jew would have had no difficulty in identifying the object and realising what it stood for. It is indeed a chalice[3]: not however that used in the Temple service, but a symbol of the classical Cup of Salvation, so clearly associated

[1] p. 22 (of offprint).

[2] E. Rogers, *A Handy Guide to Jewish Coins*, London, 1914, suggests (p. 23) that the chalice was included in his coins by Simon Hasmonaeus in allusion to his Priestly dignity. But the chalice was certainly not an obvious priestly symbol; and it was included on coins when the Head of the State was not a Priest, so that there does not seem to be any solid basis for the explanation.

[3] One wonders whether it is possible that this symbol is connected with the almost universal pre-Christian prototype of the "Holy Grail"; cf. for this F. Anderson, *The Ancient Secret*, London, 1954.

Spice Box for the Habdalah Ceremony, with symbols of the Jewish feasts (formerly in Howitt collection, London).



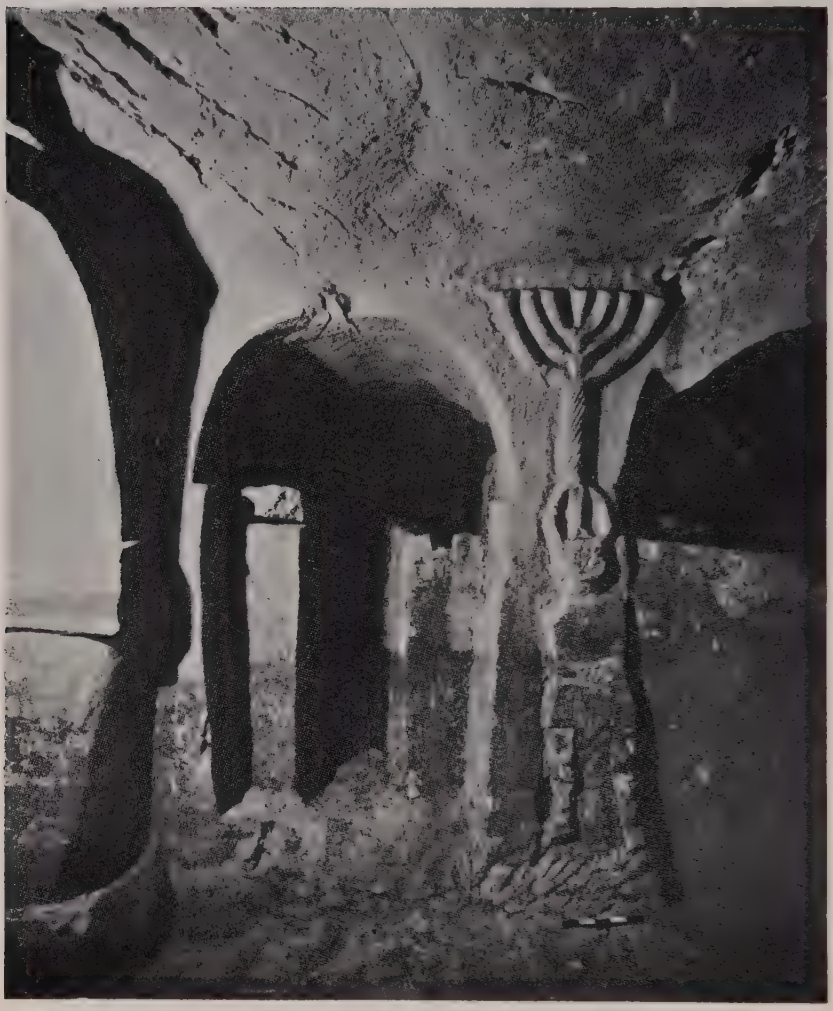
Carruca: stone carving from Capernaum synagogue.

2. Bronze Lamp, with Menorah, ram's horn, palm branch, etc.

1. ' Gold Glass ', with Menorah, Ram's Horns, Palm Branch, etc. (Vatican Museum, Rome).

2. Jewish Coins: *left*, Mattathias Antigonus (40–37 B.C.) with Menorah; *centre:*, First Revolt (68–9), with Cup (of Salvation ? and Branch (of David ?);

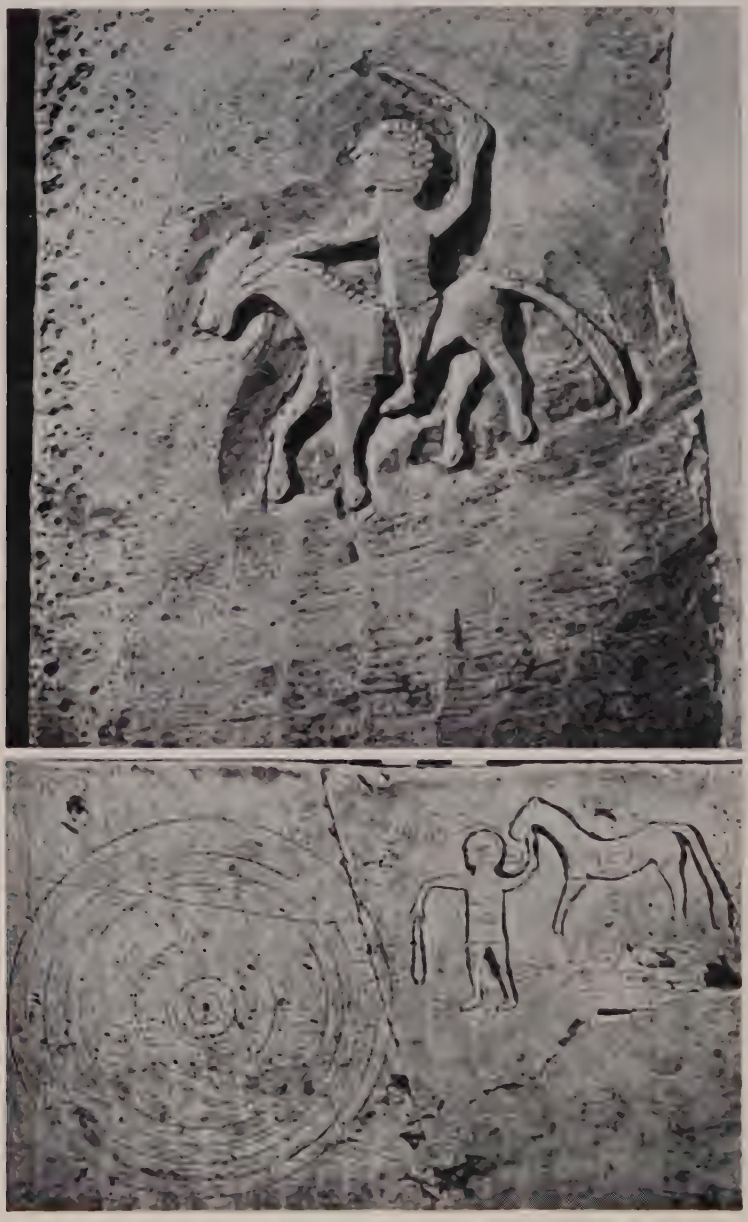
right, Second Revolt (133) with Sanctuary surmounted by Star (of Jacob ?) and jar with vegetation.



'The Light to the Gentiles': relief from Catacombs of Beth Shearim.

1. Menorah with Ram's Horn and Palm Branch (Stone Carving from Tiberias. Musée du Louvre).

2. The Messiah and His Harbinger: Illustration from Venice Haggadah, 17th century.



'The Steed of the Messiah'?

From the catacombs of Beth Shearim.

with the Redemption, and prompted by the familiar Biblical verse: " I will lift the Cup of Salvation and call upon the Name of the Lord " (Psalm cxvi, 13)—a phrase which became proverbial in Jewish life. Associated with this was the idea of the " cup of consolation " for the Jewish people spoken of by the Prophet Jeremiah (xvi, 7). " ' *My cup runneth over* '—this refers to the Cup of Salvation, which is also the Cup of Consolation ", gloss the Rabbis (*Midrash Shoḥar Tob*, Psalm xxiii, 5): while the statutory Four Cups of wine prescribed for the Passover Eve service are specified as corresponding to the Four Redemptions (*Bereshith Rabba*, § lxxxxviii)[1]. It may be added that the two coins bearing the name Simon, and formerly ascribed to Simon Hasmonaeus, have recently been ascribed to another Simon—Simon bar Giora, the extremist (one might almost say apocalyptic) leader in the First Revolt. If this ascription is correct, the " Messianic " interpretation would seem to be all the more likely. A stone (synagogue?) door from Kefr Yasif now in the Louvre[2] bearing Jewish symbols shews a Candelabrum in the place of honour, flanked on either side by a chalice: it figures also on ossuaries (G. 156): while a door-lintel from Nave[3] similarly has it among the sacred objects. The symbol was not therefore restricted to coins, and was clearly not bound up with the Temple worship, as was formerly held[4].

If the obverse of the coins, showing the Chalice, has a pointed allusion to the pervading Messianic spirit of those excited days, it would be natural to find a symbol of the same sort on the reverse also. In fact, on all the coins of the First Revolt which we have been considering, the Chalice has, as it happens, as its reverse counterpart, what has been described variously, and unconvincingly, as spring flowers, a bunch of pomegranates, pomegranate flowers[5], and so on. But a more precise and more significant interpretation suggests itself at once. We have here as it seems to me a Messianic allusion in the most specific sense: whatever the botanical interpretation, this is intended to suggest the " branch of David " which figures so prominently in Biblical and post-Biblical literature as symbolic of the great Deliverance that was to be expected. The point is reverted to constantly: " And there shall come forth a shoot out of the stock of Jesse " (Isaiah xi, 1): or " I will cause a plant of righteousness to grow up for David " (Jeremiah xxxiii, 15): or more specifically: " Behold, I will bring forward My servant the Plant " (Zechariah iii, 8) and " Behold a man whose name is the Plant, who shall

[1] As noted by Goodenough, *op. cit.*, 1, 276.

[2] *Ibid.*, Pl. III.

[3] Plate in Reifenberg, *Ancient Hebrew Arts*, p. 106.

[4] M. Gaster, in an article *Jewish Coins and Messianic Traditions*, in The Expositor, October, 1916 (reprinted in his *Texts and Studies*, ii, 660–678) suggests on the basis of Samaritan as well as Talmudic tradition (cf. *Mekhilta* on Exodus xvi, 33) that the " chalice " represents the Pot of Manna which, with the lustral water and flask of anointing oil (and according to one tradition the Rod of Aaron) would be restored in Messianic times. I do not wish to push the point so far.

[5] So, categorically, Narkis, *loc. cit.*, pp 199–200.

shoot up in his place and build the Temple of the Lord" (*ibid*, vi, 12). The figure was carried on, and made even more familiar, in the fourteenth benediction of the Amidah-prayer, recited thrice daily, the wording of which was fixed perhaps even before the fall of the Jewish state: "Cause Thou speedily the plant [of] Thy servant David to grow . . . for we have looked for Thy salvation each day". Through this interpretation, the reverse and the obverse of these coins of the period of the Revolt immediately come into close association, both reflecting the Messianic excitement of the age. It may perhaps be added that, although it is best to refer this to the Messiah of Davidic lineage, it is not wholly necessary: the redemption of the People could obviously be illustrated by the same symbolism.

The second symbol which we have been discussing, the triple "pomegranate" flower, does not figure at the time of the Second Revolt. In its place, we find on several coins sprouting vegetation in a vase, which might well symbolise the same idea: an adequate alternative explanation has not I think been offered thus far. The reverse of this series of coins shews in every (or almost every) case what is generally interpreted as the Temple, Sanctuary, or the Temple Gate, the religious and political significance of which in the circumstances of the time needs no elaboration: for the rebuilding of the Temple was certainly uppermost in men's minds and (if it is true that Jerusalem was reoccupied by the insurgents) may actually have begun. This architectural feature is surmounted on many coins by a star, which has been thought to allude to the name of Bar Cochba, "the son of a Star." I wonder however whether it might not be, in a line with the other symbolism, a reminiscence of Numbers xxiv, 17: "There shall come forth a Star out of Jacob," the name "*Bar Cochba*" possibly deriving from the coin, and not *vice versa*.[1] Conceivably, the "sceptre that is to arise out of Israel", in the second half of the verse, could be identified with some hitherto-unrecognised representation on these coins. The Trumpets and the Lyre found on others of this period, if not general symbols of jubilation, may well refer to the restoration of Temple psalmody.

A symbol that recurs frequently on the coins of the Second Revolt, and to some extent on those of the First, is a Vase—sometimes in the form of a one-handled jug, more frequently a two-handled Amphora. I have suggested elsewhere a possible interpretation in the latter case, for certain types at least, to which I do not wish to adhere dogmatically. In the former case, however, what is intended is certainly intended for pouring, and therefore represents a receptacle of some liquid. If this too is a Messianic symbol, the nature of the liquid becomes certain. It must be the "oil of anointing," through the virtue of which the descendant of David would become the

[1] It is perhaps worth while to point out the association of the Star and the rebuilt Tabernacle of David in the so-called Zadokite fragments; "The Books of the Law are the Tabernacle of the King, as He said: "And I will raise up the tabernacle of David that is fallen . . . and the Star is the teacher of the Law" (Rabin's ed., 1954, pp. 29–31).

Messiah, " the anointed one "; presumably to be connected with the " flask of oil " which Samuel and Elisha used, (I Samuel x, 1; II Kings ix, 1). In later Jewish lore, oil was regarded as the symbol of the Messiah, and is associated thus with the " horn " of David. Glossing on the phrase " oil for light " relating to the Temple candelabrum (Exodus xxv, 6), the Rabbis say: " This refers to the Messiah, as is written (Psalm cxxxii, 17): ' *There will I make the horn of David to bud: I have ordained a lamp for mine anointed* ' ". It was indeed suggested that at the time of the Redemption the Messiah would anoint the High Priest.[1] A Jug also figures, obviously with something more than casual or decorative intention, at the entrance to the Jewish Catacomb at Venosa in South Italy[2]. A very early Midrash on Exodus xvi, 33–4 (*Mekhilta*, ed. Lauterbach, ii, 126) speaks of the " flask of oil " (צלוחית שׁל שׁמן המשׁחה) as one of the Sanctuary relics which would be restored in Messianic times.[3] This may then be the real significance also of the amphora which is to be found so frequently in the friezes of the Galilean synagogues and various other Jewish monuments of the classical period (inscriptions, frescoes, Gold Glasses, etc.) usually flanking the representation of the Sanctuary or the *Menorah*. Frey lists over thirty of these in Rome and the neighbourhood alone. Obviously, if we accept my interpretation, the object thus attains tremendous importance, and we would understand why for example in a tombstone of Via Randanini now in Pusey House, Oxford (G. 770) the amphora figures alone with a Palm-branch. The Palm of Victory and the amphora of Messianic oil: what could be more fitting?[4]

This line of thought made me wonder whether the Ram's Horn, the *shophar*, might not perhaps have sometimes a double significance: representing not only the *shophar* for the great Blast of Deliverance, but also the horn of oil for Messianic anointing (which could be either complementary to or else a substitute for the Amphora). Glancing again at some of the illustrative monuments with this in mind, I noticed something which I do not think has been commented on before. In one at least of the Roman Gold Glasses,[5]

[1] *Tanḥuma*, ed. Buber, ii, 91–2; L. Ginzberg, *Legends of the Jews*, iii, 153.

[2] Cf. also Goodenough, Pl. 286 (lamp shewing oil jug), and 536 (lamp between two lions).

[3] Similarly, the palm-branch figures prominently by the side of the oil jug in coins of the Second Revolt: there must be some reason for this incongruous juxtaposition on relics so widely separate in time and space.

[4] Frey, *op. cit.*, 576.

[5] It idly occurs to me that the representation of the Fish in the Gold Glasses may be a reference to the legendary Messianic repast of the Leviathan: the usual suggestion that it was the statutory Sabbath meal is overemphasised. But I suspect that the fish is merely intended to indicate (or emphasise) the presence of water.

(Beyer)—Lietzmann, *Die jüdische Katakombe der Villa Torlonia*, pp. 15–27, suggests an eschatological interpretation of various symbols (sun, moon, etc.) on an arcosolium in that catacomb, but the " messianic symbols " I suggest relate rather to this world.

two horns figure, one straight and one twisted. That both can be intended to represent the conventional *Shophar* is impossible: and that the one is the conventional *shophar* and the other a wind-instrument is unlikely, as the grouping certainly refers to the Synagogue, where instrumental music was unknown. There therefore seems in this case every reason to believe that the one horn is the *shophar*—the "*shophar of Redemption*"—and the other, deliberately differentiated from it, the Horn of Messianic Oil.

Let us revert for a moment, in conclusion, to the coin-sequence. Attention has been called in the past more than once, and with surprise, to the fact that the outstanding and characteristic feature of Judaism in antiquity, the *Menorah* or seven-branched candelabrum, barely figures at all as a symbol in the Jewish numismatics of this period. There was an exception only in coin-sequence issued by King Mattathias Antigonus, who reigned 40 B.C.-37 B.C.[1]: thereafter, it never recurs. I have suggested above however that it is desirable to interpret the symbolism on ancient Jewish coins in relation, not to general circumstances, but to the precise conditions of the period. If we do that in this case, a wholly satisfactory explanation is readily forthcoming. Antigonus, son of the unfortunate Aristobulus, was placed on the throne by the Parthians in 40 B.C. after their successful invasion of Judaea and the expulsion of the Romans and their protégés. One of his first actions was to mutilate his uncle Hyrcanus, who as Herod's puppet had for so long been nominal Ethnarch and at the same time officiated as High Priest, so as to disqualify him henceforth for the sacerdotal functions. Antigonus now reverted to the tradition of the Hasmonaean rulers of a former generation, being both King and High Priest. What more natural than that he should have placed on his coins, in allusion to this fact, the most prominent and most easily-recognised symbol of the Jewish cult and of the Temple-worship which was his special care? If it is correct that the obverse of these coins represents "the tetrastyle screen between the Holy Place and the Holy of Holies"[2] the historical allusion becomes all the more obvious. It now becomes clear why the most significant of all Jewish symbols never again figures on any Jewish coin[3]. It was because these political circumstances never recurred, the High Priest not being absolute head of the state at any subsequent period.

[1] Rogers, *op. cit.*, p. 27, questions whether this coin belongs in fact to Antigonus, but the ascription is now certain.

[2] *Ibid.*

[3] Goodenough (i, 273) suggests that the disappearance of the Menorah from Jewish coins after Antigonus was due to Rabbinic disapproval of the cheapening of so holy an object. If this were the case, it is difficult to understand why it remained so all-pervasive in other media.

DAVID'S MONARCHY AND THE GIBEONITE CLAIM

(II Sam. xxi, 1–14)

By H. Cazelles

The object of this paper is to discuss the curious chapters which close the books of Samuel, 2 Samuel xxi–xxiv, and their strange composition. They have been inserted at the expense of the unity of the account of the succession of David, which is accordingly cut into two parts, 2 Samuel ix–xx and I Kings i–ii. It is probably not without intention that they have been employed to bring the books of Samuel to an end. We have here a stage in the composition of the historical books whose meaning it would be very interesting to discover. But in order to do this we must first define the meaning of these insertions in themselves. Since Wellhausen[1] it has been observed that it is not a question of simple additions, placed one after the other, but that these diverse fragments are encased, as it were, in one another. Two poetic passages, on David as king (ch. xxii) and as prophet (xxiii, 1–7) stand in the midst of a group of notes on the heroes of David (xxi, 15 ff.; xxiii, 8ff.), and this collection is in its turn set in a sort of diptych, which deals with the two scourges which were each terminated by a sacrifice ordered by David. The three years of famine were brought to an end by the sacrifice of Saul's descendants on the hill of Gibeon (xxi, 1–14), and the plague of three days' duration was brought to an end by a sacrifice of oxen on the site of the future Temple. Each passage ends with the words " After that, God (in ch. xxiv Yahweh) answered the prayer for the land ". The parallelism is evident; but before we can carry the comparison farther and penetrate the purpose of the editor, or draw conclusions which can shed light on the composition of the historical books, it is necessary to analyse both passages.

It is with the first of these passages that we are concerned today. This affair of the family of Saul, the Gibeonites and David had long intrigued the commentators, but it would seem that we are witnessing a veritable revival of studies on this subject. Since I decided to deal with this question, no less than three recent studies on it have come to my knowledge, besides those which I may have missed. The first is by Juan Prado in *Sefarad* xiv (1954, pp. 43–57). The author of the narrative, he says, purposed to give a theological presentation of a story told in Israel not very favourable to the dynasty of David. He has underlined the moral aspect of the demands of Yahweh, and he has underlined the heroism of Rizpah, and paid tribute to the justice and piety

[1] *Die Composition des Hexateuchs*, p. 263.

of David. Under his pen the policy of David took on a new aspect. A. Malamat[1] has given his study a different direction, and has sought to shed light on the text by an oriental parallel, the prayer of Mursil II, the king of Hatti. An epidemic scourged the Hittites and an oracle informed the king that its cause lay in the Hittite breach of a treaty with Egypt. This is what Malamat calls the principle of causality in historiography. Just as Mursil had violated the treaty between the Hittites and Egypt, and had attacked Amqa, so Saul had violated the pact concluded between the Israelites and the Gibeonites (Josh. ix, 3 ff.). The responsibility is collective just as much with the Hittites as with the Israelites, and the two countries are punished, the Hittites with a plague and the Israelites with a famine. In both cases an oracle makes known the reason for the scourge. This is brought to an end by a sacrifice offered to the god. Here therefore we have another aspect of the question. Professor Kapelrud has raised a third in his recent paper at the Congress for the History of Religions held in Rome, where he treated of the relations of David with the family of Saul. The text of this paper has not yet been published, and I can therefore only cite it from memory. He insists on two points, policy and ritual. In the ideas of the epoch King David ought to have been held responsible for the scourge but this incident helped him to consolidate the dynasty and the domination of Judah and he utilised the sacral character of Saul's seed to get rid of it. Underlying it Kapelrud finds the fertility rites which are characteristically Canaanite. In my opinion it is by the thorough study of these two points of view that the passage can be analysed, in the detailed study of the historical background and the further investigation of the problems of literary composition.

Let us consider first the ritual background to which Kapelrud directs attention. The whole of the second part of the story is dominated by the sacrifice of Saul's descendants, and this sacrifice has nothing specifically Israelite about it. Far from it, indeed. It presupposes a basis of Canaanite beliefs, such as one might expect in this Hivite city, which had preserved its autonomy to the time of Saul. If there is a famine, it is because the god is incensed. It is necessary to propitiate him. But the verb used here means in the Qal עתר "to pray", and in the Niph'al יֵעָתֵר "to answer a prayer", where the prayer may be conceived of as a sacrifice. This was already perceived by Wellhausen and Robertson Smith[2], who connected this root with the Arabic عتر. The root is rare in Semitic unless it is connected with Accadian *eṭêru*, with a *teth*. This connexion is, indeed, tempting, since the Accadian root means "to spare, to heal, to save"[3]. It occurs, apparently, once in the Tell-el-Amarna letters[4], but in a mutilated passage. In any case it is found frequently in

[1] *Vetus Testamentum*, Jan. 1955, pp. 1–12.

[2] *The Religion of the Semites*, 2nd ed., Chap. vi, n. 346.

[3] Bezold, *Bab.-ass. Glossar*, pp. 25–26; Mullo Weir, *Lexicon of Accadian Prayers*, 1934 p. 92.

[4] Knudtzon, 121, 40.

prayers and rituals of expiation. The change from emphatic *ṭ* to simple *t* is not impossible in Semitic dialects, the classic case being *qatal*.

The foundation of the story is thus a question of expiation. David so understands it when, in addressing the Gibeonites, he does not say " Upon whom will you take blood revenge ? " but " With what shall I make expiation (אֲכַפֵּר), in order that you may bless (imperative used in a final sense)[1] the heritage of Yahweh ? " L. Morris[2] observes that the reply says nothing about expiation, or even about ransom, *kôpher*, but it is really implied all the same. If the reply of the Gibeonites takes up the legal position of the *lex talionis*, the language of David rests on another consideration. The verb *kipper* is never employed for *shillem*, " to make compensation ", not even in Num. xxxv. 33; for here the emphasis is not on the *lex talionis*, but on the pollution. We are still in the domain of ritual.

That we have to do here with an agricultural ritual the text itself indicates. The sacrifice takes place in the days of harvest. There again the text is involved: " in the days of harvest (*qâṣîr*), in the first ones, the beginning of the barley harvest (*śe'ôrîm*)". This barley harvest figures equally in the book of Ruth (i. 19, ii. 23). It is the first harvest of all, in April[3], but the condition of the text raises the question whether " in the beginning of the barley harvest " is not an addition, in apposition to *ri'šônîm*. In any case the sacrifice takes place " in the days of harvest ", and it lasts (verse 10) until " water was poured upon them from heaven ". This mention of the water of heaven cannot be explained if we think only of Rizpah guarding the corpses. Why should the first rain dispense with the necessity for her guard ? It is perfectly explained if it is a question of a fertility rite, whose purpose is to end a famine brought about by drought. We are in the same situation as in 1 Kings xvii–xviii, where it is the absence of rain which has caused the famine which hit so severely the widow of Zarephath, her family, and the kingdom of Israel. The sacrifice of the descendants of Saul thus belongs to a seasonal ritual, converted into an exceptional rite.

Can we be more specific ? Yes, thanks to two details of the narrative. What kind of punishment is inflicted on the victims ? It is not said that they are killed, nor yet that they are hanged. In a carefully documented note S. R. Driver[4] has shown, as against Robertson Smith, that it was not a question of throwing down the bodies, for if the Hiph'il *hôqi'u* were from a root which in Arabic means " to fall ", we should have had the root *naphal* here in Hebrew. To suppose with Klostermann, Dhorme[5] and Cheyne that it is necessary to read *talah*, " to hang ", demands a correction of the text for which there is no a priori case. S. R. Driver shows that the Versions offer only approxima-

[1] Cf. Gesenius-Kautzsch, §110 i; Joüon, §161 m.

[2] *Australian Biblical Review*, ii, 1952, p. 86.

[3] A. Barrois, *Manuel d'arch. Bibl.*, i, p. 313; G. Dalman, *Arbeit und Sitte*, i, pp. 7 ff.

[4] *Notes on the Hebrew Text of Samuel*, 2nd ed., 1913, p. 351.

[5] *Les Livres de Samuël*, 1910, p. 420.

tions to the meaning, translating by " expose " (Septuagint), " crucify " (Targum, Vulgate), " sacrifice " (Peshitta). To translate " impale ", with Gesenius and de Vaux, takes no account of the use of the verb in other Biblical texts. It is in fact a question of dislocating a joint (e.g. Gen. xxxii, 26), of being separated from something or someone (Jer. vi. 8; Ezek. xxiii. 17). It appears difficult, therefore, not to see in the punishment in question here, just as in Num. xxv. 4, the dismemberment of the corpse. What is the meaning of this dismemberment ?

The other feature is less strange. It is the mention of the birds in verse 10. Rizpah prevents the birds by day and the wild beasts by night from approaching the corpses to devour them. In the present text this is linked with the burial of the corpses which David ordered. But in the same verse this is joined to the mention of the harvest and the rain, and this suggests a ritual interpretation.

Now a Ras Shamra text enables us to understand this ritual. It is found in column II of I AB (Gordon, No. 49), published by M. Virolleaud in 1931.[1] M. Dussaud[2], while he associated the text with the agrarian rite of the last sheaf, noted also the connexion of the sacrifice of Gibeon with these rites (following Frazer[3]). The text speaks of the sacrifice of Môt, carried through by Anat. This sacrifice serves to restore Aleyan Baal to life, to cause the streams to flow, to rain down fatness[4], and to bring to an end the drought which reigns in the absence of Baal. It does not seem possible, indeed, to translate lines 17–19 with Gordon " a soul was missing among men, a soul of the multitudes of the earth ". Baal is not a being who can be reckoned amongst men, and *npš* (despite the doubtful 119, 29) can hardly signify a person. It is the Breath, or the appetite[5]. The breath, life, is lacking to men, to the multitudes of the earth, while Baal has disappeared, under the heat of the sun and the blazing of the heavens through the power[6] of Môt.

Anat seizes Môt and makes him undergo what the ears of corn undergo during the summer. She begins by cutting him with the sword. As what follows coincides with the operations of agriculture, this first act must correspond to the harvest. Instead of speaking of the " harvester " and of " scythe " or "sickle", (" in Hebrew חֶרְמֵשׁ or מַגָּל), the author interprets

[1] *Syria*, xii, pp. 205 f.

[2] *Revue de l'Histoire des Religions*, Cv, 1932, pp. 389–392.

[3] *Adonis*, Fr. translation, p. 14: Esprit des blés et des bois, Chap. i (Dionysos). But T. H. Gaster (*Thespis*, p. 124, n. 17) thinks that it is not necessary to press too far the identification of Môt with the spirit of the corn.

[4] I AB (Gordon, No. 49), III, 5; cf. Gordon, *Ugaritic Literature*, p. 46 and H. Ginsberg, in *Ancient Near Eastern Texts*, p. 140.

[5] II Keret, VI, 11. This is the meaning found by H. Ginsberg: " Lifebreath was wanting among men, lifebreath among earth's masses."

[6] *byd*, translated " at the whim " (Gaster), " on account of " (Gordon, Kapelrud in *Baal in the Ras Shamra Texts*, 1952, p. 127). For Ginsberg it is the Sun goddess who is in the hands of Môt, but the result is the same, the domination of Môt during the summer.

the rites by a myth, according to the general tendency of his text. But this cannot be followed to the end, and there will be a question of " winnowing fan ", " millstone " and " sowing ". It is not said, however, that she runs Môt through, but that she cuts (*bqʿ*) him. This verb corresponds well with the rare term, *wqʿ*, of our Samuel text. The rite of dismemberment is thus explained ; the two verbs are morphologically very close to one another, and we find in cuneiform not only the transition from *b/p* to *m*, and from *m* to *w*, but even from *b* to *w*[1]. Then the descendants of Saul had to suffer what Môt had to suffer in Canaanite mythology.

The operations continue. Anat tosses Môt in the winnowing fan, she scorches him in the fire, she crushes him on the millstone, and sows him in the fields. The last three lines are the most discussed. The rhythm and the parallelism oblige us to divide them thus:—

šerh ltekl ʿṣrm
mnth ltkly npr
-er lšer yṣḥ

Leaving aside the last line, the first two lines are exactly parallel. It is questionable if *šer* should be rendered by " flesh "[2], since the root appears to be written in Arabic, ثأر[3], which would be represented at Ras Shamra by *ṯer*, and not *šer*. It matters little for our purpose, however, whether the remains (Gaster) of Môt were eaten or the flesh. Equally little does it matter whether the *šer* (whether remains or flesh) was eaten, or whether, on the contrary, this act was avoided. What is important is to know who either ate or might have eaten. M. Dussaud, who has been followed here by Worden, has suggested that *ʿṣr* here represents the Hebrew *ʿôṣer*, *ʿaṣérét*, " interdict ". But that is hardly in line with the text. There is no interdict, but drought. As everywhere else at Ras Shamra *ʿṣr* means " bird ", and the parallel *npr*, which in Accadian[4] means " primogeniture " seems here to mean the little bird. Hence the majority of scholars[5] agree with M. Virolleaud in seeing in *ʿṣrm* the birds which come to devour the corpse just as they come to peck up corn. In the rite performed by Abraham (Gen. xv,ii) birds are also mentioned.

We meet these birds again in the ritual of Gibeon. Had it not been for the presence of Rizpah they would have completed the fertility sacrifice in devouring the dismembered remains along with the wild beasts. The animal

[1] So *wabalu/babalu* (cf. Von Soden, *Grundriss der akk. Grammatik*, §21 c.). For more examples see J. Gelb in Bi-Or. XII (1955), p. 101.

[2] Rather impressive is the parallel with the myth of Etana, cited by Gaster (*Archiv Orientální*, v, 1933, p. 120, n. 1) and T. Worden (*The Literary Influence of the Ugaritic Fertility Myth on the Old Testament, Vetus Testamentum, III*, 1953, p. 294, n. 3): *mimmû iṣṣûrât šamâmê ûridâma ikkalâ sîrê*=" Every species of the birds of heaven will descend and eat the flesh " (so Dhorme).

[3] Cf. Gesenius-Buhl, 17th ed., *in loco*.

[4] Cf. Bezold (with an?), Muss-Arnolt, Delitzsch.

[5] Albright, Gordon, Gaster, Ginsberg.

which devours the spirit of the grain is elsewhere more kindly represented in the form of the ibex eating the leaves of the tree of life. The Ras Shamra text which translates a ritual into mythology scarcely gives a hint that this harvest festival was normally accompanied by a ritual murder. Neither does the book of Ruth. But Frazer gives some examples[1] of this, for the ritual murder is not an invention of ethnologists, and is precisely what we should expect amongst the Canaanites, who kept up the custom of the murder of the firstborn.

According to our text, if David agrees to this ritual sacrifice in which men should take the place of the god Môt[2], it is not for the sake of the fertility rite, but in the name of the *lex talionis*, the ancient law inherited from Israel's nomadic days. It is curious to note how, in the dialogue between David and the Gibeonites, it is David who speaks of ritual or of gift, while the Gibeonites, unlike the Hittites, the Babylonians, and the general tendency of commercial communities like the Canaanites, maintain the full rigour of the *lex talionis*, and refuse any monetary compensation: " It is not a question of silver or gold between us and the house of Saul ". They add: " We have not a man to put to death in Israel ". This might be understood to mean: " There is no man whatsoever in Israel whom we should wish to put to death " (de Vaux), or, with Gressmann, " We have not the right to kill an Israelite ". We might take it to mean " We have no longer the right," as in xix. 7: " You no longer have captains ". It is an affair of blood. But owing to the supremacy of Israel, the Gibeonites could not exact the blood revenge which the justice of Yahweh required, which was the only valid expiation which would accord with David's desire to appease the divinity.

Will the king accede to their suggestion and give them the right to carry out the *lex talionis* against an Israelite ? There is no doubt that the monarchy of the national type founded by Saul would not have allowed this. Verse 2 recalls that it was in his zeal (*qin'âh*) for the children of Israel and Judah that Saul broke the oath taken by the Israelites to the Gibeonites. Saul, king at Gibeah, found himself blocked by the belt of Canaanite cities, Beeroth, 11 kilometres to the north, Gibeon, 4 kilometres to the west. It is probable that he expelled to Gath the men of Beeroth, from whom the assassins of his son Ishbaal came (2 Sam. iv). It was he also who was responsible for the breach with the Gibeonites, under circumstances of which we have no knowledge, save that there was a battle (verse 2) and executions (verse 1). Perhaps these towns were in collusion with the Philistines. This may have been the case with Kirjath-jearim, where the Philistines had left the Ark. In any case the monarchy of Saul gave no place to the Canaanites in the Israelite community. The Gibeonites had not the rights of natives, and in particular could not practise the *lex talionis* against Israelites.

[1] *Esprits des blés et des bois*, Fr. translation, pp. 19 ff.

[2] This name is now in the Israelite onomasticon. Cf. עזמות *'Azmôt* in the Greek vocalization (2 Sam. xxiii, 31)—" Môt is strong " (cf. I AB, VI, 17–20).

The position of David was different. He was of genuine Israelite blood (2 Sam. v. 1), having probably descended from the clan of Ephratah; but he had established his power in the periphery of Israel. At Ziklag he was in Simeonite territory, but he had let alien groups, such as the Kenites and the Jerachmeelites share in the booty which he took from the Amalekites. When we study the genealogies of Genesis (xxxviii. 1 ff.) and of Chronicles (ii–iv), dealing with the tribe of Judah, it becomes clear that this tribe included a number of non-Israelite clans. It was not the conquest of Jerusalem, an old Jebusite city, more or less attached to the Canaanite belt, which changed the character of David's monarchy. This had a universal character, combining in the same allegiance the most diverse peoples, from the Edomites to the Aramæans of Damascus. At the unhappy time of the revolt of Absalom, it was with the support of Transjordan, including the Ammonites, that David was able to maintain himself. In Palestine itself, Professor Alt[1] has shown that new administrative districts in Solomon's list, such as that of Socoh, were made up of assimilated Canaanite cities. Finally, Professor Albright[2] appears to me to be right, when he dates the list of Levitical cities in Josh. xxi in the time of David; the "gaps" noted by Alt[3] and by Professor Noth[4] are those of territories anciently conquered by the Israelites; the greatest density of levitical population, on the contrary, was found in the Canaanite territory.

The dating in the time of Josiah proposed by Alt does not explain the number of these cities in the districts which were only reached by the Israelite penetration at a late date, such as the Gibeonite belt, the Vale of Esdraelon, and the south of Judah with the exception of the territory of Simeon. Up to the time of Saul, when the Israelites conquered they destroyed the sanctuaries, the last example of this being the massacre of the priests of Nob. The monarchy of David aimed rather at assimilating the Canaanites and their sacred cities. When the book of Numbers speaks of the cities of refuge, which were only particular cases of the levitical cities, it does not say: "You will choose the cities of refuge", but "You will find (*hiqrîthem*) cities of refuge", a clear indication that it believed that they already existed at the time of the conquest (Num. xxxv, 11). This indicates that instead of destroying the pre-existing sanctuaries, David assimilated them.

[1] Israel's Gaue unter Salomo, in *Alttestamentliche Studien R. Kittel dargebracht*, 1913, pp. 1–19=*Kleine Schriften*, ii, 1953, pp. 76–89.

[2] "The List of Levitic Cities" in *Louis Ginzberg Jubilee Volume*, 1945, pp. 49–73.

[3] "Bemerkungen zu einigen judäischen Ortslisten," in *B.B.L.A.K.*, 1951, pp. 199 ff. =*Kleine Schriften*, ii, pp. 294–305. Alt supposes that the transfer of the cultic personnel ordered by Josiah has been interrupted. See further p. 10.

[4] *Alttestamentliche Studien F. Nötscher gewidmet*, 1950, pp. 164–167. The solution offered above answers the objection of Noth, who asks why it is that there are no levitical cities in Ephraim and the region of Jerusalem. The connexion of the Levites with the sacred cities remains to be explained. On the distinction between the priests (of Jerusalem) and the Levites, cf. *Biblica*, 1954, p. 288.

The attitude of David in relation to the Gibeonites appears to be another indication of this policy of assimilation. David has not the same zeal as Saul for the children of Israel. This was perhaps the cause of the revolts of Absalom and Sheba, and finally of the Disruption after the death of Solomon, since Israel was not at home in this monarchy of a universal type, the heritage of the claims and of the universal pattern of the Pharaonic monarchy[1]. In any case David allowed to the Gibeonites the right of the *lex talionis*, which was recognized by the ancient custom of the Israelites. Revenge is still collective, executed by one family on another, or by one clan on another, and the descendants must pay for the deeds of their ancestor. Becoming henceforth a part of the heritage of Yahweh, it is quite natural that they should consent to bless this heritage of Yahweh, with which their interests would now be bound up (compare verse 3). The assimilation is effected.

This appears to have been a politic act in the best sense of the word. It has often been observed that it was equally a politic act in the worse sense of the word. David by this means got rid of the rival house, and by an ostensibly fine and generous gesture, left remaining only a helpless cripple, Mephibaal. This is not quite certain, since, according to the text, the Gibeonites limited to seven the number of the descendants of Saul whose execution they demanded: " seven from (*min* partitive) the sons ", says the text. It would appear that they chose a figure as symbolic of the total figure of the slain Gibeonites; it is probable that at the time of Saul's *coup de main* and executions, there were more than this number of deaths. What is most surprising is David's choice of persons. Saul had four sons[2], Jonathan, Melchishua, Ishvi (probably to be identified with Ishbaal)[3], and Abinadab. David did not choose any of their descendants, but the two sons of a concubine and the five sons of a daughter of Saul. It is apparent from the text that Mephibaal, the son of Jonathan, ought to have been executed, but was spared because of David's oath. But it is extremely unlikely that the other three had died childless. It is most probable that they had all been already executed, with the exception of the impotent Mephibaal, who had been left in the charge of Machir the son of Ammiel of Lodebar. David therefore had blood on his hands as Shimei said at the time of the revolt of Absalom[4]; but it is not likely that the execution demanded by the Gibeonites contributed at all to the consolidation of his kingdom. That was already settled, and, despite his impotence, Mephibaal who had, or would have, a son (Micah[5]), and descendants (cf. 1 Chronicles viii. 41–44), was more dangerous than the sons of a concubine or of a daughter. All that we can say is that this incident weakened the party of Saul, but the complexity of the

[1] May the Philistines have acted as intermediaries? Cf. A. Alt, *Kleine Schriften*, i, p. 229.

[2] Cf. 1 Sam. xiv. 49, xxxi, 2.

[3] Cf. S. R. Driver, *Notes* . . . , p. 120.

[4] 2 Sam. xvi, 8.

[5] 2 Sam. ix, 12.

character of David will not allow us to exclude from his motives the intention to do this.

This complexity now compels us to go back to the religious background of the incident. We have seen how the sacrifice demanded by the Gibeonites belonged to the seasonal Nature rites, the place of the god Môt being taken this time by human beings. We should note at the same time that David by his demand stood on the same ritual ground. Was it not equally by reason of the Canaanite customs that he chose the descendants of a concubine and a daughter of Saul for such an immolation? The conquering Israelites attached little importance to woman. It was not the same with the inhabitants of Canaan. The Ras Shamra texts attach considerable importance to maternity, whether that of Meshet Ḥory, Meshet Denty, Nikal, Anat or the heifer. At Jerusalem a special status was given to the *gebîrah*, the mother of the king. It is also apparent from the request of Abner [1] and that of Adonijah[2], and from the act of Absalom at Jerusalem[3], that the royal concubine had a special relation to the sacral character of the king in the eyes of the common people. It may be that the choice of David was inspired by these customs and by the Canaanite mentality. This was not the only concession David made to the Canaanite mentality. Rizpah, of the house of Saul, testifies to her contempt for the Canaanite rites, and her fidelity to her own, by preventing the birds from consuming the sacrifice. The corpses remained there unburied. When he heard of it, David's first care is to provide for their burial so as not to be troubled, according to the ancient fear, by these *eṭimmu* (ghosts), as the Accadians would say[4]. We do not know if the corpses were buried in a doubled up position or in sarcophagi, after the manner of those found at Beisan. That may have been the case with the bodies of Saul and Jonathan, which were with good reason taken down from Beisan by the men of Jabesh, and which had not been impaled. It is not very likely in the case of the dismembered corpses of the descendants of Saul, whose bones were without doubt put in jars. It was in the tomb of Kish, their ancestor, at Sela (whose exact location is unknown to us, but which cannot have been far from the control of the Gibeonites) that the bones of their enemies were laid. These religious concessions of David to the Canaanites were in line with his policy. We know that, down to the exile of Israel, politics and religion went always hand in hand. They corresponded to the religious tendencies of the king, who never engaged in any enterprise without consulting the ephod, and who entertained a real fear of the Ark of the Covenant when Uzzah died after touching it. But this is a general aspect of the policy of David. I agree with Professor Rowley and many others that Psalm cx sought to attach David to the ancient line

[1] 2 Sam. iii, 8.
[2] 1 Kings ii, 11 ff.
[3] 2 Sam. xvi, 22.
[4] G. Contenau, *La Magie chez les Assyro-babyloniens*, p. 91.

of kings of Jerusalem[1]. I agree equally with Albright that the list of Levitical cities in Josh xxi is to be connected with the time of Saul. There was therefore with David not only a policy of assimilating the Canaanites, but a religious policy which tended to find a place for Canaanite religious customs. Mr. Porter, in his recent article in the *Journal of Theological Studies*[2], seems to me to have well brought into relief the Canaanite aspect of the ritual. It was this line of policy which was to lead to the construction of the Temple under Solomon; but David would not yet dare to go so far.[3]

In any event we cannot deny that this Canaanite aspect has been weakened by the author. Already Chapter vi softens down all that might allow any value to the Nature rites, and the author of the Court History of David does the same, when he translates into terms of psychology the sacred marriage of Absalom with the concubines of his father (2 Sam. xvi, 21). In our passage it is even more clear. The act of David is above all an act of justice and of pity—justice towards the Gibeonites and pity towards Mephibaal, or loyalty towards Saul and Jonathan. Why then has the author by inserting these appendices to the books of Samuel sought to save from oblivion this episode where the least observant of readers feels a certain uneasiness at the conduct of the king. I think the answer to this question may put us on the way to some interesting indications bearing on the composition of the books of Samuel. We must examine a little more closely the parallelism which Wellhausen notes between the expiation of Gibeon and that of the threshing-floor of Araunah in Chapter xxiv. There also we find a Nature rite to ward off the cattle pest transformed in relation to a historical event, namely, the discontent aroused by the census. This appeared as unbearable to the Israelites as it had appeared to the Rabbæans of Mari.[4] We see here at work the profoundly Biblical tendency which gives a historical meaning, or a bringing in of the providence of Yahweh, to the ancient agricultural festivals. Not only does Unleavened Bread, attached to Passover, recall the liberation from Egypt rather than the substitution for the firstborn, but the feast of Tabernacles becomes in Leviticus[5] the memorial of the sojourn in the desert. Here the harvest festival, the feast of weeks, becomes the royal festival whereby the evils that menace the city or the state are warded off thanks to a royal ritual. In Chapter xxiv we see that what interests the

[1] H. H. Rowley, "The Relationship of Gen. xiv and Ps. cx," in *Festschrift A.Bertholet*, 1950, p. 469.

[2] "The Interpretation of II Sam. VI," *J.T.S.*, 1954, pp. 161–173.

[3] Solomon does not seem to have preserved the equilibrium achieved by David between the Israelite faith and the assimilation of the cultural values of the environment.

[3] bis We have here a case of *débér*. That is a cattle plague according to Ex. ix, 2 and Jer. xxi, 6. Such a cattle plague must be warded off by rituals when the great heat of the summer comes. The Greek text (xxiv, 15) says it was the time of wheat harvest.

[4] A.R.M., I, 6, 6–13; cf. J. R. Kupper, "Le recensement dans les textes de Mari," *Studia Mariana*, 1950, p. 108.

[5] Lev. xxiii, 43.

author is the site chosen by David. The threshing-floor of Araunah the Jebusite will become the sacred site of the Temple which Solomon will build, the place chosen by Yahweh to cause His name to dwell there. The sacrifice at Gibeon seems to offer a complete antithesis to the sacrifice on the altar of Jerusalem. Gibeon is the high place marked by the crime of Saul and defiled by the bones of his descendants. Ezekiel speaks of these bones scattered by God around the altars and high places.[1] Gibeon, the ancient high place, where Solomon will come to pray, and to ask for political wisdom before founding the true Temple, Gibeon is the sort of high place that Deuteronomy disapproves of, before Jeremiah and Ezekiel condemn them. God is only appeased here by blood, whereas at the threshing-floor of Araunah He is responsive to supplication even before the city is touched. David, king and prophet after the manner of Deut. xviii, in the midst of his faithful people, in the setting of a liturgy in which his perjured foes are punished, but by which his plea is answered despite his lack of wisdom[2]—such appears to be the architecture, at first view so strange, of these appendices. The theology is manifestly deuteronomic, although neither the style nor the composition are. Whoever interpolated these appendices in the middle of the Court History of David obviously intended to give to the books of Samuel their present meaning, the glorification of the Davidic monarchy which alone can intercede with God and alone has the promise of endurance. It was not so much the dynasty of David that counted. The reign of Solomon began a new story, that of the abuses of the dynasty. It is David alone who counts, and the distant successor whose model he is. So, it seems to me, we should understand the composition of this fragment, at first sight so disconcerting, but which on closer examination is seen to be so charged with significance, history, and theology.

[1] Ezek. vi, 5.

[2] Note the terminology of xxiv, 10, *in fine*.

A PROVISIONAL CHRONOLOGICAL TABLE OF THE PRE-HISTORIC AND HISTORIC AGES OF PALESTINE: II

By Alan Rowe

Since my first Chronological Table of Palestine Ages was compiled (*QS.*, 1954, pp. 76 ff.) there have appeared two important articles on the subject of the approximate dates for the older periods of Palestine. The first is that of B. A. van Proosdij, in *Jaarbericht*, No. 13 (Ex Oriente Lux), Leiden, 1954, pp. 271 f., 329 ff., Kart III, which equates the Palaeolithic and Mesolithic cultures of Palestine, etc., with those of Europe, giving all-round dates for the European cultures ranging from 500.000 B.C. for the Chellean to 8000–7000 B.C. for the Mesolithic (Azilian). The Azilian is equivalent to the Natufian of Palestine, the latter dated by W. F. Albright 8000–6000 B.C.[1]

The second article is that of W. F. Albright, in *Relative Chronologies in Old World Archaeology*, ed. by R. W. Ehrich, 1954, pp. 28 ff., which gives Albright's dates for the Palestine cultures succeeding the Natufian, namely:—

(1) Neolithic (Tahunian). Early Neolithic pre-pottery Jericho X–XVII: first half of fifth millennium. Middle Neolithic Jericho IX (pottery): *c.* 4500–4000 B.C.

(2) Chalcolithic (Sub, Lower, Middle, and Upper or "Esdraelon Culture"): *c.* 4200–3100 B.C.

Further, according to Albright the succeeding phase of Palestine culture, namely, Early Bronze I, (*a*) *overlapped* the Esdraelon phase (which he dates *c.* 3400–3100 B.C.), and (*b*) was *contemporary* with the latest predynastic period (Late Gerzean or Late Nagada II) *and* the very beginning of Dynasty I of Egypt. In his *Archaeology of Palestine*, 1949, p. 71, he attributes this particular early bronze age period 32nd to 29th century B.C., which may be compared with *c.* 3200–2800 B.C. in my *QS.* article mentioned above, adding, however, "Late Gerzean" *before* "I–VIII" in the Egyptian dynastic column (see p. 79).

It has long been known that during Late Gerzean and very early Dynasty I Egypt was in contact with the Jemdet Nasr culture of Mesopotamia,[2] Syria

[1] *Archaeology of Palestine*, 1949, pp. 59 ff. Albright's dates for Lower, Middle and Upper Palaeolithic and Early Mesolithic cultures are given in *op. cit.*, pp. 52, 55, 58 f.

[2] For this culture see A. Parrot, *Archéologie Mésopotamienne*, I, 1946, pp. 322 ff., II, 1953, pp. 245 ff., 332 ff. (important section dealing with chronology); L. Delaporte, *Les Peuples de l'Orient Méditerranéen*, I, 1948, pp. 31, 63 ff.; W. F. Albright, in *BASOR.*, 88, Decr. 1942, p. 32. The keystone of any attempt to fix the date of Dynasty I of Egypt has been the dates of Jemdet Nasr culture and its links with the Nile Valley.

and Palestine naturally becoming, according to Albright[1], the " cultural intermediaries through which [the] Mesopotamian influences streamed into " the Nile Valley. This culture is dated by Albright[2] *c.* 3200–3000 B.C. Sir Leonard Woolley, however, informs me that he has evidence to indicate that at Ur the culture could scarcely have lasted less than 250 years; it could even, he thinks, have lasted very much longer ! He further says that, although the Jemdet Nasr culture might have ended *c.* 3000 B.C., he would, but as a concession only, allow *c.* 2900 B.C. for its latest date. And as he would not accept any argument that the transport of the influence from Mesopotamia required very much time, he would give *c.* 2900 B.C. for beginning of Dynasty I of Egypt, although, he says, if he had to modify that, he would prefer to put the date a bit *earlier* than a bit later as postulated by certain authorities.

The following dates are now generally proposed for the beginning of Dynasty I:—

Scharff and Moortgat[3] (2900/2850 B.C.); H. Stock[4] (*c.* 2830 B.C.); J. Vandier[5] (*c.*2900 B.C., *i.e.* " entre 3000 et 2800 " of other scholars); Drioton-Vandier[6] (3000 B.C., being situated approximately between the extreme dates proposed in recent studies, namely, R. A. Parker[7], 3110 B.C. and Scharff, 2850 B.C., although the date of Scharff " est de beaucoup la plus vraisemblable "); R. Anthes[8] (3200/2850 B.C.); and W. F. Albright[9] (*c.* 29th century B.C.).

Most of these authorities have taken the Jemdet Nasr influence on early Egypt into consideration, and it but remains to add that, although the evidence, *purely archaeological*, allows no commencement date for Dynasty I to be fixed with certainty in the present state of our knowledge, the date cannot evidently, I believe, have been earlier than *c.* 3000 B.C. or later than *c.* 2850 B.C. In regard to the radio carbon method of analysing the age of organic materials as applied to certain objects from a Dynasty I tomb,

[1] *Archaeology of Palestine*, pp. 71 f.

[2] *Archaeology of Palestine*, p. 71; *cf. BASOR.*, 88, Decr. 1942, p. 32.

[3] *Ägypten und Vorderasien im Altertum*, 1950, pp. 37 ff., 191.

[4] *Die Erste Zwischenzeit Ägyptens*, 1949, p. 103. Professor Sidney Smith informs me that he does not think the Turin Papyrus can be used quite in the way Stock does, and says the identifications are arbitrary. The sections do, however, seem to the former authority to be overlapping dynasties, not a succession, and his " impression is that the interval between Dynasty VI and Neb-hepet-Ra^{c} (Dynasty XI) may be about three generations, *more* rather than less ".

[5] *Manuel d'Archéologie Égyptienne*, I, 1952, p. 613.

[6] *L'Égypte*, 1952, pp. 16 f., 160 f., 627. I received this later edition after my article in *Q.S.*, 1954, had appeared in print.

[7] *The Calendars of Ancient Egypt*, 1950, p. 75 (note 59).

[8] *Ägypten: Historia Mundi*, 2 Band, 1954, pp. 130, 134, 139.

[9] *BASOR.*, 88, Decr. 1942, p. 32; *Archaeology of Palestine*, p. 71. So long ago as 1920 (in *JEA.*, VI, p. 97) Albright gave the accession date of Menes 2950/2850 B.C.

that of the official Hemaka, etc., it has to be remembered that there is an average risk of a margin of error of ± 200 years or more in this method.[1]

The following table, which indicates the successive positions taken up by Albright between 1942 and 1954 in regard to the synchronisms of the Early Bronze Ages of Palestine with the early periods of Egypt, is an illustration of the difficulties which beset all competent authorities who attempt, at the present time, to establish anything like final conclusions upon the subject as a whole.[2] The letters " c.d." which I have added in the second column mean " commencement date (of dynasty) "; other details included by me are in [ ].

Early Bronze (Copper) Ages.	*BASOR.*, 88 (Decr. 1942), p. 32.	*Arch. Pal.* (1949), p. 71.	*Rel. Chron.* (1954).
I	—	32nd–29th cent. (=Late Gerzean).	Late Gerzean and very early part of **Dyn I.**
II	*c.* 29th cent. (=**Dyn. I** c.d.) to 26th cent.	29th–26th cent. (=latter part of **Dyn. I** [onwards].	**Dyn. I** [onwards].
III[3]	*c.* 26th cent. (= **Dyn. IV** c.d.) and *c.* 25th cent. (= **Dyn. V** c.d.) to 23rd cent.	26th–23rd cent. (= **Dyns. III–V**).	**Dyns. IV–VI**
IV	*c.* 23rd cent. (= **Dyn. VI** c.d., *i.e. c.* 2300) to 21st cent.	Transitional phase lasting from 23rd cent. down into 21st cent.	—

Some of the dynastic dates given in *QS.*, 1954, p. 79, must be revised in accordance with the 1952 edition of Drioton-Vandier, *L'Égypte*, pp. 627 ff.,

[1] *Cf.* H. J. Kantor, in *Relative Chronologies in Old World Archaeology*, pp. 1 ff. But the method of the new British Museum Laboratory Carbon 14 plant promises to reduce this still more, for the Laboratory " have made possible a reduction of the statistical error from around ± 6 per cent. to ± 1 per cent. "; H. Barker, in *The Times Science Review*, Winter 1954, p. 9. See also *Radiocarbon Dating*, assembled by F. Johnson, *Memoirs of the Society for American Archaeology*, 8 (Supplement to *American Antiquity*, XVII, No. 1, Part 2, July, 1951), pp. 52 f.; W. L. Bliss, in *American Antiquity*, XVII, p. 250; W. F. Libby, *Radiocarbon Dating*, 1952, and supplement to same, *Chicago Radio Carbon Dates*, IV (Institute of Nuclear Studies and Department of Chemistry, University of Chicago); and *Science*, 116 (1952), p. 673.

[2] *Cf.* also P. van der Meer, *The Ancient Chronology of Western Asia and Egypt*, 1955 (Vol. II of *Documenta et Monumenta Orientis Antiqui*, ed. by W. F. Albright and A. de Buck), second edition.

[3] A typographical error in *Archaeology of Palestine*, p. 71, line 9, gives " Early Bronze II " for " Early Bronze III ".

i.e. for Dynasties I–VIII (3000[1]/2850–2220 B.C.) and for Dynasties IX–X (2222–2070 B.C.); the dates for the succeeding dynasties remain unaltered, except in some minor cases. The Scharff and Moortgat dates are: I–VIII (2850–2190 B.C.), IX–X (2190–2052 B.C.).

With regard to the " Approximate Overall Dates " for Beth-shan levels V–IX, and the dynastic parallels for these levels, as given in my original *QS.* article (p. 79), they are to be adjusted as follows in view of G. M. FitzGerald's later excavations, as suggested by Albright, in *AASOR.* XVII, pp. 76 f.:—

Level V. Pottery typically Early Iron I, 12th–10th century B.C. In it stood the two temples of the time of Saul and, strangely enough, a statue of Rameses III and stelae of Rameses II and Sety I, brought up from lower levels. These monuments might well, I suggest, indicate some Egyptian influence early in the period covered by V; otherwise it is difficult to explain why a non-Egyptian people should have concerned themselves with pharaonic monuments.

Level VI. This level, with its temple, must be dated to reign of Rameses III (1198–1166 B.C.) for the lintels of the official Ramessu-wesr-khepesh (one of which, found by FitzGerald, bears the cartouche of the king) are now proved to have belonged to VI and not to V as was originally thought. XXth Dynasty.

Level VII. Mycenaean sherds, and painted sherds, mostly of Late Bronze III type, 13th century B.C., that is, XIXth Dynasty, indicating the temple in the level to be that of Sety I or Rameses II.

Level VIII (a partial rebuilding of IX). Pottery largely resembles that in VII. End of 14th century B.C. or beginning of 13th, that is, within XVIIIth Dynasty.

Level IX. Aegean and local pottery of Late Bronze Age of 14th century B.C. XVIIIth Dynasty. Temple to be dated accordingly.

My sincere thanks are due to Mr. FitzGerald for having so kindly sent me full notes on the five levels.

[1] The date of 3200 B.C. in the fourth column of my 1954 *QS.* article must include *c.* 200 years for the previous or Late Gerzean period. Professor H. W. Fairman, to whom I am indebted for some of the bibliographical references in the present article, recalls that the discovery that Late Gerzean (Late Nagada II) ended at S.D.64 and not 78, as was once thought, means that everything previously called Late Predynastic is really Protodynastic. The system of sequence-dating was of course invented by Petrie; see *Diospolis Parva,* 1901, pp. 4 ff., also his *Making of Egypt,* 1939. The lowest S.D. so far used is 20, *i.e.* for the Tasian or earliest Neolithic culture.

ROYAL SUBSTITUTION IN THE ANCIENT NEAR EAST

By JOHN GRAY,

AMONG the voluminous evidence amassed by Sir J. G. Frazer to demonstrate the identity of the ancient king with the dying and rising fertility-god is the festival of the Sacaea.[1] On the evidence of Berossus Frazer makes two assumptions which the evidence cited does not support, namely that the festival was a native Babylonian rite and that it was connected with the annual seasonal festival of the New Year.

Berossus, according to Athenaeus[2], states that the festival of the Sacaea was celebrated in Babylon for five days from the sixteenth day of the Greek month Loos. At this festival the rôles of masters and servants were reversed and one of each household (τῆς οἰκίας ἕνα αὐτῶν) was clad in clothes like the regalia, this person being called *Zoganes*.

Here there is obviously no connection with the great New Year festival, the *akitu* of Marduk at Babylon, which was held in the Spring. On that occasion, which was a festival of eleven days, the king underwent humiliation on the fifth day and temporarily abdicated. With such a rite, which he interpreted as a symbolic death, Frazer associated the Sacaea. To say nothing of the fact that the Sacaea fell not in Spring but in Autumn there is no suggestion in the cuneiform evidence from the Babylon New Year festival that the king's humiliation was a ritual death, nor that he had a substitute during this temporary abdication. Nor indeed in Berossus' statement is there any reference to the death of the *Zoganes*. It is in fact not even said that the figure impersonated the king. Each household had a " king of the revels ", and the occasion is obviously a domestic Saturnalia.

Nor can we even be sure that the Sacaea was a native Babylonian festival. Berossus states that it was celebrated at Babylon, but he was writing in the Greek period and the festival may well have been of Persian origin, as is suggested by the fact that all other authorities for such a rite suggest a Persian connection. Athenaeus after his citation from Berossus gives a cross-reference to the 2nd book of Ctesias' Persica and Strabo[3] attesting the festival at Zela in Pontus in the 1st century A.D. connects its origin with the victory of the Persian Cyrus over the Scythians. A Persian origin seems to be indicated here. Dio Chrysostom[4] also regards it as a Persian rite. There is thus no doubt that the rite had a Persian connection. Its celebration in Babylon which Berossus attests may then be due to its introduction by the Persians after their conquest of Babylon by Cyrus the Great in 539 B.C. On the other hand it is not impossible that it was a native Babylonian rite adapted by the Persian conquerors.

Admitting the possibility of the latter explanation Langdon points out[5]

[1] J. G. Frazer, *The Golden Bough* I, 1890, pp. 226–272.

[2] Athenaeus, *Deipnosophist* xiv, 639 c.

[3] Strabo XI, viii, 4–5.

[4] Dio Chrysostom, *Oratio IV*, 69.

[5] S. Langdon, " The Babylonian and Persian Sacaea ", *J.R.A.S.*, 1924, pp. 67 ff.

that the old Sumerian calendar attests an autumnal New Year festival, and in fact the ancient Sumerian year began, like the Hebrew New Year, in Autumn. It is therefore possible that Berossus' Sacaea may be connected with the Autumnal New Year. Here, however, we have no evidence of the role played by the king, so that Frazer's theory is still a matter of speculation.

The statement of Dio Chrysostom is interesting in so far as it does suggest a rite known to have been practised in Babylon in the 7th century B.C. Dio Chrysostom says that in the Sacaea, which he terms a Persian feast, a criminal played the part of the actual king, even to the extent of having the liberty of the royal harem. After a stated term, however, he is scourged and hanged. We must admit with Gadd[1] that there was such a rite in the Persian festival of Noo-Rooz in the " ride of the beardless one ". At the same time Dio Chrysostom's brief description does suggest a certain rite which we know to have been practised in Babylon before the Persian period, to which G. Goossens, rightly in our opinion, has related the Sacaea[2]. That is the institution of the substitute king (*šar puḫi*). A series of letters[3] addressed to Esarhaddon (681–669 B.C.) inform us that in view of an eclipse the disaster which that presaged was to be averted from the Assyrian viceroy in Babylon (actually the son of the king, Šamaš-šum-mukîn) by the substitution of someone either noble or common. This substitute king was to rule for a hundred days in the old capital of Akkad, during which time the real ruler lived in obscurity under an assumed name and busied himself in placating the angry deities with rites and offerings.

One of these[4] letters has a peculiar interest. Besides referring to the death of the substitute king and his consort, one of the court-ladies, it refers to the designation of a substitute king in advance as an older custom, so that if the eventuality arose there should not be a lack of a substitute. Moreover, this substitute-designate was to be a mental defective (*saklu*), who was to be put in charge of an official. G. Goossens, who has brought all this matter into fresh focus, suggests that *Zoganes* of Berossus is the Akkadian *šakanu* (vizier)[5] and that Sacaea is derived from the Akkadian *sakku* (deaf or mute).[6]

We believe with Goosens that there is a connection between the occasional rite of the *šar puḫi* and the annual festival of the Sacaea the latter being in a sense the vulgarization of the former, both in motifs and in general purpose.

We suggest that the principle of substitution in the face of apprehended disaster may underlie a certain astrological text from the palace at Ras Shamra[7], which we may cite in transliteration:—

[1] C. J. Gadd, *Ideas of Divine Rule in the Ancient Near East*, 1945, pp. 95–96.

[2] G. Goossens, " Les Substituts Royaux en Babylonie ", *Analecta Levaniensia Biblica et Orientalia*, Ser. II, fasc. 13, 1949, pp. 383–400.

[3] L. Waterman, *Royal Correspondence of the Assyrian Empire*, 1930, nos. 46, 223, 359, 362, 437, 594, 629, 653, 676, 1006, 1014.

[4] *op. cit.*, no. 437.

[5] So A. Sayce, *Lectures on the Origin and Growth of Religion as illustrated by the Religion of the Ancient Babylonians*, 1888, p. 68 n. 1.

[6] So Langdon, *op. cit.*

[7] C. Virolleaud, " Les Nouvelles Tablettes de Ras Shamra ", *Syria* XXVIII, 1951, text III, pp. 25–27.

b tt ym ḥdṯ
ḫyr ʿrbt
šṗš ṯġrh
ršṗ

reverse

wʿbdm tbqrn
skn

The crux here is the meaning of *skn*. In a preliminary study of this text we suggested that *skn* meant here as apparently in the text Gordon *UH* 75, II, 53, where it is in parallelism with *ʿdn*, " a crisis ". Here however, it is difficult to see the connection with the verb *tbqrn*, and we now reject the translation " let them apprehend a crisis ". It seems more feasible to connect *skn* of our text with *skn* meaning a stele in the inscription Gordon *UH* 69, 1 and also probably in 2 Aqht I, 27; II, 16. In the former text the stele *represents* something, probably a votive offering to the god Dagon. In the administrative texts Gordon *UH* 113, 64; 114, 3; 115, 12; and 400 V, 17 *skn* occurs as a definitive of *mr'um*, a military class in ancient Ugarit. In the last text *mr'u skn* seems to bear the same relationship to *mr'u* as *bdl mrynm*, " substitute *mrynm* ", to *mrynm*, " equestrian feudatories ". Hence *mr'u skn* probably means " substitute for *mr'u*. Here it may be recalled that in the Amarna Tablets[1] *zukinu* occurs as a Canaanite gloss on the Akkadian *rabiṣu*, the representative of the suzerain power abroad. We now suggest that the Ugaritic text which we have cited should be translated:—

> " During the six days of the new moon of the month Ḫyr, the Sun setting and Rešef being her porter,[2] then let the devotees seek out a substitute."

Was the Ugaritic *skn* the *Ζoganes* of Berossus ? Here as in the Babylonian texts a substitute was found in an astral crisis, though in Babylon, to be sure, that was no less than an eclipse. At any rate the Ugaritic text by its six-day period associated with the lunar month suggests an affinity with Babylonian thought and practice wherein the seventh, fourteenth, nineteenth, twenty-first, and twenty-eighth days of the month were considered sinister periods when the king, for the good of the community, could not eat bread prepared by fire, nor could he don his royal robes, nor sacrifice, nor mount his chariot, nor hold court. The rite of substitution is not otherwise attested in Canaan, so that on the basis of the text we have cited it remains but an interesting conjecture. There is, however, no a priori reason why the rite of royal substitution in crises should not have been known and practised in Canaan as well as in Babylonia, where, as also in Israel, the king was a sacral figure who concentrated in his sole person the vitality and experience of his whole people before God.

[1] J. A. Knudtzon, *Die El-Amarna Tafeln*, 1908–15, no. 64, 9.

[2] Rešef is apparently the Venus-star in this text.

HEBREW SEALS

By G. R. Driver.

Two Hebrew seals, apparently of the Israelite or pre-Exilic period, which are now in the Ashmolean Museum at Oxford, are here published in order that they may be brought to the notice of those who are interested in the subject; for, though both have been for many years in the possession of the Museum, neither has been published, so far as I know.

The first seal (Ashm. Mus., 1921/1221; fig. 1), of which the source is unknown, is a scaraboid of brown chalcedony, measuring 2 cm. in length of engraved surface. It has in the upper register a large winged griffin, looking rightwards, and in the lower register לְהוֹשֵׁעַ " (belonging) to Hoshea "; this is a name well known both from Old Testament and from other seals (Diringer, Moscati).[1]

The second seal (Ashm. Mus., 1914/57; fig. 2), which was bought in Aleppo, is a scaraboid of yellow limestone, measuring 2·8 cm. in length of engraved surface. It has three registers of figures separated by double lines, and the owner's name in Old-Hebrew letters beneath them. In the upper register two hawks stand facing one another, and an ibex galloping rightwards is engraved between them. In the middle register a four-winged scarabaeus is balanced on each side by a man facing towards it. In the lower register, from left to right, a lion and an ibex and a bird, possibly again a hawk, stand looking rightwards. Underneath the legend reads לִמְנַחֵם " (belonging) to Menahem," a common Hebrew name found not only in the Old Testament but also on other more or less contemporary seals (Diringer, Moscati); after the last letter of the name is an ornament, apparently the *ankh*-sign, added to fill the vacant space.[2]

I am greatly indebted to Dr. D. Diringer and Mr. W. L. Brown for assistance in preparing the notes on these two seals.

[1] Cp. Diringer *I.A.-E.P.* 165–6/3 (xix 3), 204/46 (xx 16). [2] Cp. *op. cit.* 204–1 (xxi 18, 19).

Fig. 1.

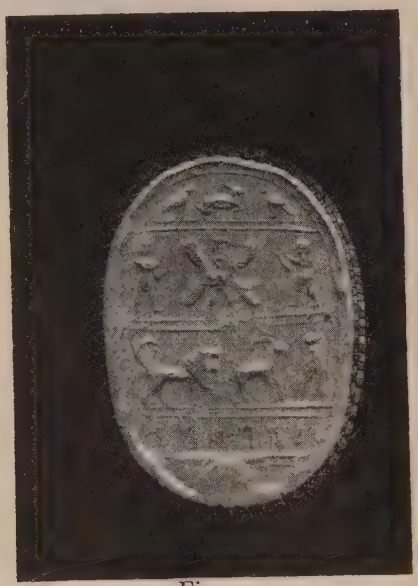


Fig. 2.

THE LIGHTER SIDE OF DIG LIFE

By MARGARET WHEELER

The non-archaeological aspect of life at Jericho is a whimsical affair hedged about with perhaps as many difficulties as is possible to hedge life about with: to wit, the constant struggle to keep clean in a basinful of hot water, the lack of privacy, the mud in the wet weather, the compression of eighteen human bodies round the communal dining board, the chill in the tents at night in January and February, the fleas in March and April. But reducing all these trials to naught, of course, were The Puppies. I speak with feeling about these diabolical little bits of furry jelly. They began at the beginning of the dig and went right through to the end supreme in their knowledge of Directorial protection. They were fairly harmless at the beginning—adorable little bits of pariah fluff. We ran a sweepstake as to which of the three would waddle up the steps to the common-room first. The stakes and the barracking were keen. There were the starters, Black, Brown, and Black & White, and here were we, the punters encouraging from the top of the steps. It was fairly obvious after a week or two that those with their money on Black & White didn't stand a chance. He was fat, lazy and was bullied by his sisters. He later developed an anxiety neurosis and was a problem to the entire camp. But it was touch and go between Black and Brown. They had both attempted the lower steps and could be cajoled up a little. Certain of Brown's supporters put in overtime enticing her privately from the top. And then one day we actually discovered a Black supporter bringing special food stuffs from Amman and we learnt that hind leg massage was being administered. We demanded a ruling on this. But then the American Davis Cup players had brought over steaks to meatless England. No, all was fair. They were by now two steps from the top, and on the final day Black had led the way up and initiated the attempt, but Brown who was trying to catch up arrived with such velocity on the penultimate step that she couldn't stop and arrived surprised and breathless at the top. And Brown's supporters collected their reward. This I do agree was a very harmless little beginning and now there was no holding them. They were under our feet and in and out of our tents until we cried "Enough, no more". Dawn, and there was Black, Brown or Black & White breathing over one's face or gambolling over the bed. Dusk, and there were the same trio chewing up one's underclothes. I think by now you must have the picture. I was recounting to a learned and visiting professor how one day I had had occasion to retrieve my pants, too late, from their playful jaws. And as the story proceeded I saw his eye rove in the direction of his tent and there were the little darlings, hard at it. "My sock" he said. Yes—it had been.

But we were of stern stuff and rose above these trifling irritations. Sunday was our great day. We fell naturally into occupational groups.

1. Sunday Relaxation : the long tramp down the Wadi Qelt.

2. The Main Channel from the Spring.

1. Brown. The proud winner.

2. Black and White was the Problem Puppy.

The serious letter writers monopolised the common-room and allowed an aura of smugness to pervade the air. The non-letter-writers overcome with a sense of guilt retaliated by organising jaunts to Jerash, Jerusalem, walks up the Wadis to monasteries, anything, so long as it was not letters.

There were those of us who took to drumming. But, unfortunately, moderation was a word unknown to us. We soon killed the interest and delight of our fellows when we allowed our fingers to give a jaunty di-di-boom, di-di-boom on the goat skin, announcing that we were set for half an hour's practice. But a certain sensibility came to our rescue; we knew when we were not wanted and we would drum ourselves out into the night, far from the ears of our distracted companions. Our big moment came one evening when we were noisily returning along the Jericho road and we fell in with some of the workmen from the dig. They were delighted to hear strains of revelry and immediately grouped themselves in the road, ready for a fantasia. And there they sang and danced while we drummed. A prophet in his own country and all that, but we felt we had arrived.

These fantasias were a feature of our life at Jericho. The Arabs here love to sing and dance to the accompaniment of drums. And their delight was to be allowed to come to the Expedition House and to perform. We would all be seated on the parapet and there beneath us would be about three hundred of the villagers illuminated in the light of two or three flaring lamps. One of their number, usually the dig foreman, constituted himself the master of ceremonies and attempted to keep order among the milling, pushing, swaying crowd. The drummer performed prodigies of rhythm, and one after another either willing or reluctant victims were forced into the little circle. The transformation was amazing. One moment we beheld an awkward workman and the next a swaying, rhythmical, fascinating artist. I do admit these fantasias had a tendency to prolong themselves far into the night. But then they were the performers and they were enjoying themselves.

We, too, the Britons, in our own extraordinary way enjoyed ourselves with song. But on these occasions politeness did not chain us, weary and cold, to our chairs. One by one we could slip away and leave the hearties to their Ilkley Moors and John Peels. These sing-songs were dominated by a musical and gifted young American who sang delightful American folk songs. When we were all husky and exhausted we would call on him. France, too, produced a singer, and one perfect evening at a party by the Dead Sea we were all enchanted by our visiting bone specialist from England who sang beautiful Spanish songs in the stillness of the night.

We all loved an excuse to celebrate. Good—it was someone's birthday, George Washington's this or Australia's that. And then towards the end of the dig it was Jordan's Independence Day. Our enthusiastic young Jordanian excelled himself and gave us all a feast such as we had never had before. A sheep was roasted on the shores of the Dead Sea and in the light of a magnificent bonfire the fantasia and Ilkley Moor resounded cheerfully over the still waters.

REVIEWS AND NOTICES

The Ancient Near East in Pictures Relating to the Old Testament. By J. B. Pritchard. Pp. xvi, 351. Princeton University Press, U.S.A., and Geoffrey Cumberlege, Oxford University Press, 1955. Price 160s. net.

In 1909 the late Professor Hugo Gressmann, with the collaboration of other German scholars published in two volumes his well-known *Texte und Bilder zum Alten Testament.* In 1927 a second much enlarged and improved edition appeared, and since then, although several other excellent collections of texts and pictures have appeared, Gressmann has continued to be the constant companion of all students of the Old Testament in its relation to the surrounding civilizations. Now, from America, nearly thirty years later, we receive with gratitude two magnificent volumes of texts and pictures respectively which will henceforth fill the place of Gressmann for students of the Old Testament and for all who are interested in the culture of the ancient Near East.

A very cursory examination of the present volume suffices to show the immense advance which has been made in our knowledge of the ancient Near East during the quarter of a century since the appearance of the second edition of Gressmann. All the wealth of new material from Ugarit, Mari, Nuzu, Alalakh, Kul Tépé, to mention only a few names at random, was still unknown in 1927. Hence it is not surprising that where Gressmann's volume had 679 illustrations, Pritchard's has 769, nearly a hundred more. Many of the old illustrations appear in better photographs. Some of the categories in Gressmann receive much fuller and more instructive treatment in Pritchard: for example, the section which deals with the different types of population gives the student far more detailed representations of the ethnic differences between Amorite, Hittite, Philistine, and so forth, than were available twenty-five years ago. Another valuable addition in the new volume is a whole section devoted to the development of writing, a branch of archaeology in which most remarkable advances in knowledge have accrued in the last thirty years. This section bears the marks of Dr. Birnbaum's expert knowledge and careful editing. The arrangement of the material is excellent, and a system of cross-references in the descriptive letterpress will be most useful to the student, enabling him to compare other examples of any particular object he is studying which occur outside the main section dealing with his subject. In so large a body of material there will inevitably be omissions; for instance, one would like to have seen the interesting model of the sun-chariot and its drivers in frit, from Ugarit represented in the Ras Shamra section; but with such richness it would be ungracious to ask for more.

The book is beautifully produced, and there is only one fly in the ointment, the price. How many students, and this is a book which is a real necessity for students, can afford to pay £8 for a single book ? One is aware that the price of books is much higher in the United States than in England or on the continent, but this is surely excessive. Nevertheless, we must wholeheartedly congratulate Professor Pritchard and his collaborators on the admirable achievement which this splendid volume represents.

S. H. H.

Discoveries in the Judaean Desert I: Qumran Cave I. By D. Barthélemy, O.P. and J. T. Milik, with contributions by R. de Vaux, O.P., H. J. Plenderleith, G. M. Crowfoot, and G. Lankester Harding. Pp. xi, 165, XXXVII plates. Price 63s. net. Oxford at the Clarendon Press, 1955.

The unfortunate cessation of the publication of the Dead Sea Scrolls which had so auspiciously begun in the United States with the publication of the Isaiah Scroll, the Habakkuk Commentary, and the Manual of Discipline, is in a measure compensated for by the timely appearance of the present volume under the auspices of the Jordan Department of Antiquities, the École Biblique et Archéologique Française, and the Palestine Archaeological Museum. As the title indicates, this is intended to be the first of a series which will, as Mr. Lankester Harding promises in his foreword, deal with the material from the caves at Murabba'at and the vicinity, Qumran Caves II to VI, the Essene settlement of Khirbet Qumran, and the late documents of Khirbet Mird.

The present volume deals with the manuscript fragments and other objects discovered in Qumran Cave I. In an introductory chapter Mr. Lankester Harding, the director of the Jordan Department of Antiquities, gives an account, in his own words " as accurate as it is humanly possible to make it," of the original discovery of the cave and its contents by two Bedouin shepherds. We are informed by the editor of *The Biblical Archaeologist* that the Dead Sea Scrolls which had been taken to America by Mar Samuel, the Syrian Orthodox Archbishop of Jerusalem, have now been purchased by the government of Israel and will be united in the Hebrew University of Jerusalem with the other manuscripts from Cave I purchased by the late professor Sukenik. It is to be hoped that Israel scholars will soon make available for study the important Apocalypse of Lamech whose publication has unfortunately hitherto been held up by Mar Samuel.

The pottery found in Cave I is discussed by R. P. de Vaux, an archaeologist of established authority, and the linen textiles are ably dealt with by Mrs. Crowfoot, while Dr. Plenderleith has contributed an interesting note on the difficulties encountered in the unwrapping of the Dead Sea Scroll fragments.

The main part of the book is devoted to the large number of MS. fragments discovered in the excavation of Cave I by Mr. Lankester Harding and Père de Vaux. The labour involved in the transcription, classification, and identification of the hundreds of minute fragments of papyrus and leather must have been enormous, and no praise can be excessive for the skill with which MM. Barthélemy and Milik have accomplished a task which might well be compared to Psyche's task. The Biblical books represented by the fragments are Genesis, Exodus, Leviticus, Deuteronomy, Judges, Samuel, Isaiah, Ezekiel, and the Psalter, and the longest fragments belong to Deuteronomy, Samuel, and Isaiah. The longest non-biblical fragments are those of the Sayings of Moses, and the Rule of the Congregation, the latter amounting to two columns of over twenty lines each. The detailed study of these fragments will provide material for scholars for many a year to come. Even the small fragments of Biblical texts are not without value for textual criticism. For example, in the fragment of Deuteronomy which contains c. xxxi, l, the Massoretic text has the meaningless " and Moses went ", while our Qumran fragment has " and Moses ended ", agreeing with the LXX, and showing that the LXX was here following an older and more correct text.

One important result of the exploration of the other Qumran caves and of the Essene settlement has been to settle finally both the genuineness and the early date of the documents under discussion.

The production of this fine *editio princeps* of the new material reflects the greatest credit on the scholars who have collaborated in the task, and on the Clarendon Press for the accuracy with which a very difficult piece of typography has been carried out, and for the magnificent production of the book.

S. H. H.

PALESTINE EXPLORATION QUARTERLY

The Secretary will be grateful for unwanted copies of the following:

Vol. 1. Jan., 1923
Vol. 2. Apr., 1923
Vol. 4. Oct., 1934

The Committee have to acknowledge with thanks the following:—

Al Machriq. XL eannée, Nos. 1 & 2, 1955.

American Journal of Archaeology. Vol. 59, Nos. 2 and 3, 1955.

American Journal of Philology. Vol. LXXVI Nos. 1, 2 and 3, 1955.

Anatolian Studies. Vol. V, 1955.

Antiquaries Journal. Vol. XXXV, Nos. 1 & 2, 1955.

Antiquity. Vol. XXIX, Nos. 114 and 115, 1955.

Bible Lands. Vol. XIII, Nos. 6 and 7, 1955.

Biblica. Vol. 36, Nos. 2 and 3, 1955.

Biblical Archaeologist. Vol. XVIII, No. 2, 1955.

Biblical Research Monthly. Vol. XX, Nos. 4, 5, 6, 7, 8, and 9, 1955.

Bulletin of the American Schools of Oriental Research. Nos. 137 and 138, 1955.

Bulletin de Correspondence Hellénique. Vol. LXVII, No. 1, 1954.

Bulletin of the Israel Exploration Society. Vol. XIX, Nos. 1-2, 1955.

Bulletin of the University Museum, Philadelphia. Vol. 19, Nos. 1 and 2, 1955.

Die Welt des Orients. 1955.

Expository Times. Vol. LXVI, Nos. 7, 8, 9, 10, 11 and 12, 1955 and Vol. LXVII, No. 1, 1955.

Ex Oriente Lux. Jaarbericht No. 13, 1953-1954.

Harvard Theological Review. Vol. XLVIII, Nos. 1 and 2, 1955.

Internationale Zeitschriftenschau fur Bibelwissenschaft und Grenzgebiete. Band II, heft 1-2, 1953-1954.

Israel Exploration Journal. Vol. 5, Nos. 1, 2 and 3, 1955.

Jewish Quarterly Review. Vol. XLV, No. 4, 1955, and Vol. XLVI, No. 1, 1955.

Journal of the American Oriental Society. Vol. 74, No. 4, 1954, and Vol. 75, No. 1, 1955.

Journal of the Royal Anthropological Institute. Vol. 83, Part 1, 1953 and Vol. 84, Parts 1 and 2, 1954.

Kush. I, 1953.

Nouvelle Revue Théologique. Vol. 77, Nos. 3, 4, 5, 6 and 7, 1955.

Revue Biblique. 62nd year. Nos. 2 and 3, 1955.

Scripture. Vol. VII, Nos. 2 and 3, 1955.

Sudan Antiquities Service Occasional Papers. No. 1, 1949 and No. 2, 1953.

Zeitschrift des Deutschen Palästina-Vereins. Vol. 70, No. 2, 1954 and Vol. 71, No. 1, 1955.

PALESTINE EXPLORATION FUND

ACCOUNTS
AND
REPORT

FOR THE YEAR 1954

PALESTINE EXPLORATION FUND
2 HINDE STREET, MANCHESTER SQUARE, LONDON, W.1

THE PALESTINE EXPLORATION FUND

BALANCE SHEET, 31st DECEMBER, 1954

1953	Liabilities.	£ s. d.	£ s. d.
£	*Capital:*		
	Authorised—200 Shares of £1 each ..	200 0 0	
	Issued—11 Shares of £1 each, not called		
	Surplus of Assets over Liabilities: (Excluding donated property)		
2,921	Amount as per last Balance Sheet ..	2,646 7 4	
275	*Add:* Excess of Income over Expenditure for year	4 11 5	
(Deficiency)			
2,646			2,650 18 9
	Current Liabilities:		
780	Sundry Ceditors for Current Expenses	302 8 5	
127	Subscriptions in Advance	66 15 0	
			369 3 5
£3,553			£3,020 2 2

1953	Assets.	£ s. d.	£ s. d.
£	*Fixed Assets:*		
	Freehold Property—Donated:		
—	No. 2, Hinde Street (estimated value £5,000)		—
	Alterations and Improvements:		
1,189	No. 2, Hinde Street at net book value 1st July, 1948		1,188 17 5
	Museum, Library and Storeroom Fixtures, Fittings, Furniture, etc., at		
382	net book value 1st July, 1948 ..		382 2 7
	Typewriter at cost	39 10 0	
22	*Less:* Depreciation to date	21 0 0	18 10 0
	Jewish Colonial Trust—Donated:		
—	50 Ordinary Shares of £1 each, fully paid		—
1,593			1,589 10 0
	Current Assets:		
	Stocks of Publications, Maps, Books, Models, Lantern Slides, Library		
—	and Antiques		—
9	Subscriptions in Arrear	9 11 9	
	Investments—Post Office Issue—at cost—		
	£374 12s. 0d. 3½ per cent. Conversion Stock .. £400		
	£50 3 per cent. Savings Bonds 1955–65 50		
	£264 1s. 8d. 2½ per cent. Savings Bonds 1964–67 .. 250		
	£300 3 per cent. Defence Bonds 300		
1,100	£100 2½ per cent. Defence Bonds 100		
	(Market Value £1,031) ——	1,100 0 0	
63	Sundry Debtors	87 10 0	
	Cash at Bank, on Current Account		
605	and in hand	207 14 9	
183	Cash on Deposit	25 15 8	
			1,430 12 2
£3,553			£3,020 2 2

AUDITORS' REPORT TO THE MEMBERS OF THE PALESTINE EXPLORATION FUND.

We have examined the above Balance Sheet, Receipts and Payments Account and Income and Expenditure Account which are in agreement with the Fund's books of account and we have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purposes of our audit. Proper books of account have been kept by the Fund, so far as appears from our examination thereof.

In our opinion and to the best of our information and according to the explanations given to us, the said Accounts give the information required by the Companies Act, 1948, in the manner required and present a true and fair view of the state of affairs as at 31st December, 1954, and of the excess of Income over Expenditure for the year.

19, Coleman Street, London, E.C.2.
14th April, 1955.

(Signed) TURQUAND, YOUNGS & CO.,
(Chartered Accountants).

THE PALESTINE EXPLORATION FUND

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st DECEMBER, 1954

1953	Receipts.	£ s. d.	£ s. d.
£			
	Balance—31st December, 1953:		
364	At Bank and in Hand	605 3 8	
569	Cash on Deposit	182 11 4	
933			787 15 0
	Subscriptions and Donations, including		
483	local Societies	502 4 9	
127	Subscriptions in Advance	66 15 0	
	Refund of Income Tax on Covenanted		
90	Subscriptions	73 0 2	
210	Sales of Publications	197 7 8	
563	Rents	675 0 0	
	Dividends Received—Gross:		
	On £374 12s. 0d. 3½ per cent. Conversion Loan (£ 13 2 2)		
	On £300 3 per cent. Defence Bonds (9 0 0)		
	On £100 2½ per cent. Defence Bonds (2 10 0)		
	On £50 3 per cent. Savings Bonds 1955–65 (1 10 0)		
	On £264 1s. 8d. 2½ per cent Savings Bonds 1964–67 (6 12 0)		
36		32 14 2	
13	Interest received on Deposit Accounts ..	3 4 4	
			1,550 6 1
£2,455			£2,338 1 1

1953	Payments.	£ s. d.	£ s. d.
£			
	Printing—Quarterly	510 11 10	
	Annual 1953	443 0 7	
	Lecture Cards	24 13 2	
	Annual Report	34 0 6	
		1,012 6 1	
	Less: Contribution by British School of		
562	Archaeology in Jerusalem	50 0 0	
			962 6 1
5	Library and Librarian		40 10 6
590	Salaries, Wages and Pensions		605 4 0
138	Repairs		58 10 1
18	Insurance		25 19 6
19	Rates		126 18 3
40	Lighting and Heating		43 19 5
55	Postage and Telephone		47 0 9
61	Stationery and Sundries		133 12 1
11	Audit Fees		10 10 0
	Contribution to Exploration by British		
168	School of Archaeology in Jerusalem ..		50 0 0
1,667			2,104 10 8
	Balance, 31st December, 1954:		
605	At Bank and in Hand	207 14 9	
183	Cash on Deposit	25 15 8	
			233 10 5
£2,455			£2,338 1 1

THE PALESTINE EXPLORATION FUND

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st DECEMBER, 1954

1953 £		£ s. d.	£ s. d.
	Payments for the year as per Receipts and Payments Account	2,104 10 8	
	Less: Creditors at 31st December, 1953	779 9 1	
1,395		1,325 1 7	
4	*Add:* Depreciation on Typewriter .. 3 10 0		
779	Creditors at 31st December, 1954 .. .. 302 8 5		
		305 18 5	
2,178		1,631 0 0	
—	Balance, being Excess of Income over Expenditure ..	4 11 5	
	NOTE: £100 has been included in respect of remuneration to a member of the Executive Committee.		
£2,178		£1,635 11 5	

1953 £		£ s. d.	£ s. d.
	Receipts for year as per Receipts and Payments Account		1,550 1
	Less: Subscriptions in arrears at 31st December, 1953	9 8 5	
	Rent in arrear at 31st December, 1953	62 10 0	
	Subscriptions in Advance ..	66 15 0	
			138 13 5
1,377			1,411 12 8
9	*Add:* Subscriptions in arrear at 31st December, 1954	9 11 9	
54	Subscriptions received in Advance at 31st December, 1953	126 17 0	
63	Rent in arrear at 31st December, 1954	87 10 0	
400	Grant toward cost of Publications the liability for which appears in Creditors (per contra)	—	
			223 18 9
1,903			1,635 11 5
275	Balance, being Excess of Expenditure over Income ..		—
£2,178			£1,635 11 5

NOTE.—No depreciation for the year has been provided on Alterations and Improvements to No. 2, Hinde Street, or on Museum, Library and Storeroom, Fixtures, Fittings and Furniture, etc.

(Signed) G. R. DRIVER, Chairman,
KATHLEEN M. KENYON, Hon. Treasurer.

REPORT ON THE 89TH ANNUAL GENERAL MEETING HELD AT THE ROOMS OF THE SOCIETY OF ANTIQUARIES ON 21ST JULY, 1955.

SIR RONALD STORRS, K.C.M.G., C.B.E., *in the Chair.*

Following the approval of the Minutes of the 88th Annual General Meeting, The Chairman of the Executive Committee, Professor G. R. Driver, paid tribute to the late Mr. A. M. Hyamson, whose death had occurred earlier in the year. Sir Ronald and Lady Storrs wished to associate themselves with the tribute paid to his memory.

The Honorary Treasurer, Miss Kenyon in presenting the audited accounts for the year asked for approval of the Executives' decision to increase the annual minimum subscription from £1 1s. to 30/-. There being no dissension Sir Ronald Storrs proposed and Mr. L. E. C. Evans seconded the adoption of the accounts and the Executives' resolution accordingly. The meeting agreed.

After outlining the Fund's activities during 1954 the Chairman announced that the following officers regretted they were unable to present themselves for re-election:

Professor Driver himself, at the end of his five years' Chairmanship.

Professor D. Winton Thomas, the Vice-Chairman.

Canon Mortlock, Honorary Secretary of the Fund for over 20 years.

Miss Kathleen Kenyon, Honorary Treasurer.

In place of the retiring Officers it was proposed by Miss M. Rowlatt, seconded by Professor Garstang and agreed that the following having agreed to accept office be appointed:

Mr. Fitzgerald, as Chairman.

Dr. J. Waechter as Honorary Secretary.

Mr. Oliver Thompson, as Honorary Treasurer.

Their election was unanimously agreed to.

The Executive Committee with the aforementioned changes was unanimously re-elected for the coming year.

Messrs. Turquand Youngs & Co. were again re-appointed Auditors for the coming year.

Dr. Waechter, expressing appreciation and thanks for the work done by the retiring officers, also called for a general vote of thanks from all present. Professor Zeuner, of the Institute of Archaeology, University of London, followed the proceedings with an illustrated talk entitled " Observations on the Jericho Tombs ".

The meeting terminated with a vote of thanks to the Chairman and speakers as well as to the Lecturer.

HARRISON AND SONS, LIMITED,
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